

KENWOOD

KX-94W

STEREO DOUBLE CASSETTE TAPE DECK

Knob ass'y (Button)*
(95816736) : S
(95886654) : B

Panel ass'y*
(958990-)

Metallic cabinet*
(95864438) : S
(95864477) : B

Knob (Slide)
(95886522) : S x 2
(95886545) : B x 2

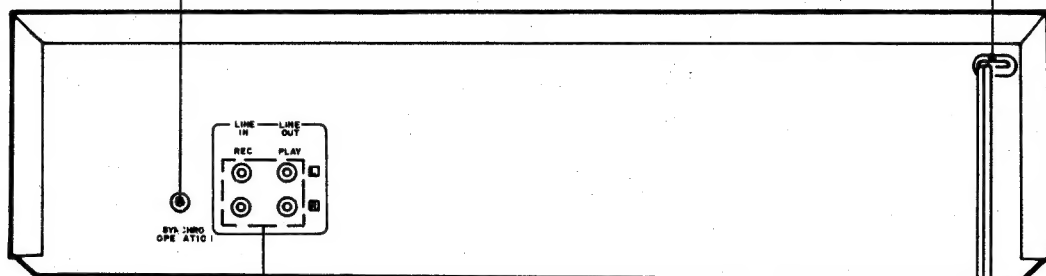


Knob (Slide)
(95886521) x 2

Knob (Button) Phone jack
(95886519) : S (92198181) x 2
(95886543) : B

Mini stereo phone jack
(92198188)

Power cord bushing
(95844322)



Phono jack
(92163887)

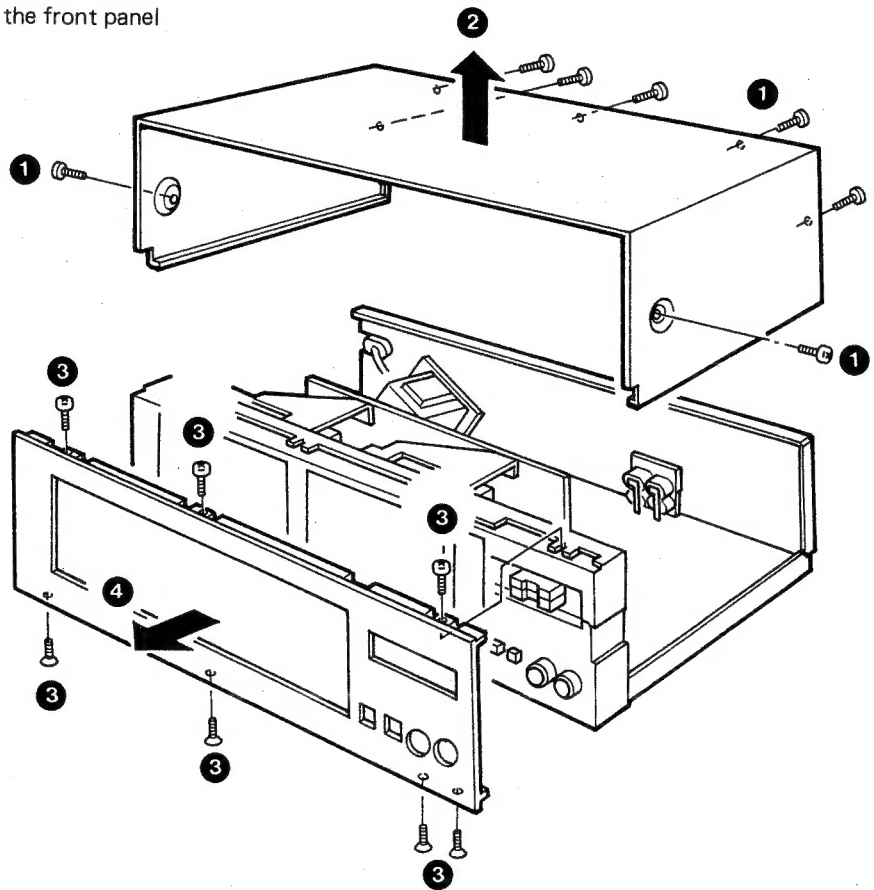
AC power cord*
(92176-)

* Refer to parts list on page 11.
Photo is KX-94W (Black version)
S : Silver version
B : Black version

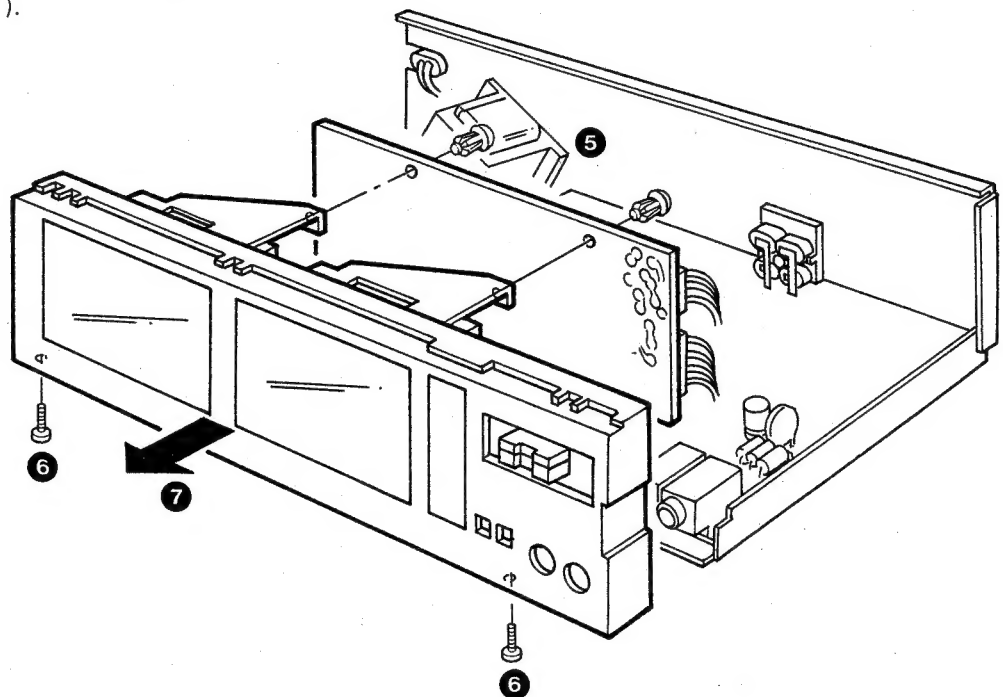
DISASSEMBLY FOR REPAIR

DISASSEMBLY FOR REPAIR

1. Remove 7 screws (❶), remove the metallic cabinet (❷). Remove 7 screws (❸), remove the front panel (❹).

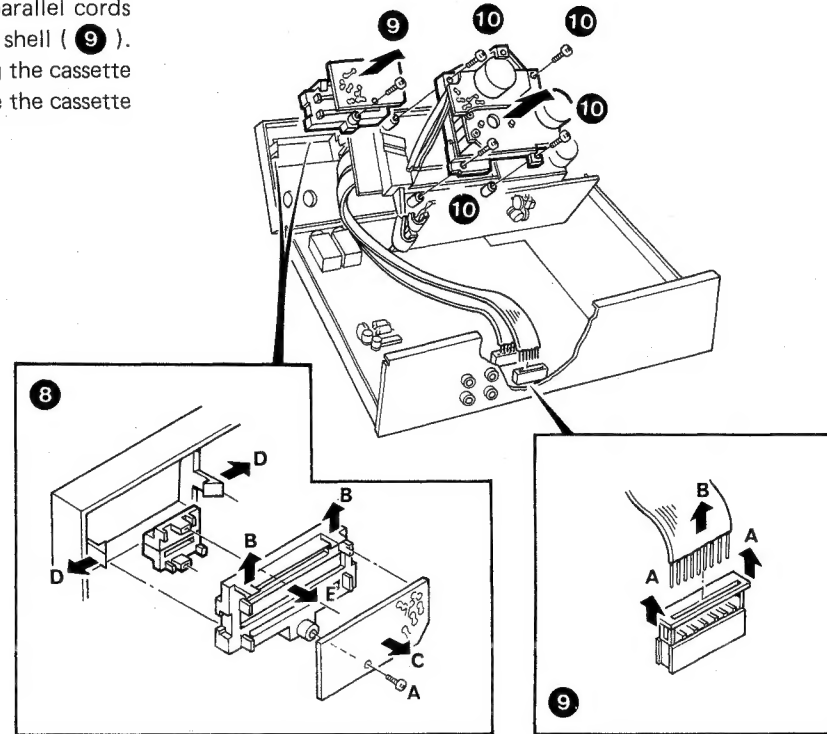


2. Remove 2 push-rivets (❺), remove the logic pcb from mounting hardware. Remove 2 screws (❻), pull out the sub panel a little bit (❼).

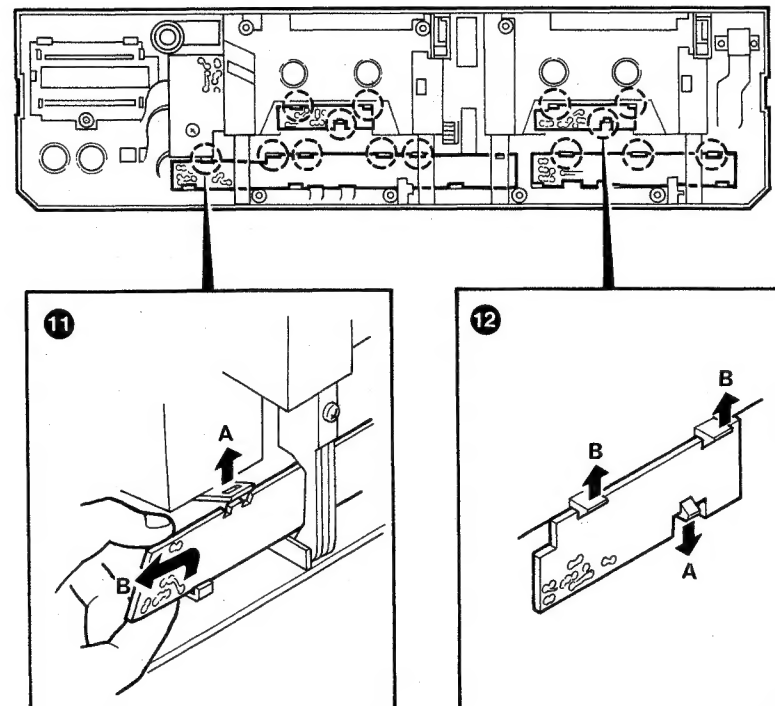


DISASSEMBLY FOR REPAIR

3. Remove 1 screw, remove the VOL pcb together with the escutcheon (8). Disconnect the cable coming out from the meter LED pcb. To remove the parallel cords from the gray connector, pull up the outer shell (9). Incline the sub panel, remove 4 screws fixing the cassette mechanism (10) for each one, then remove the cassette mechanism.

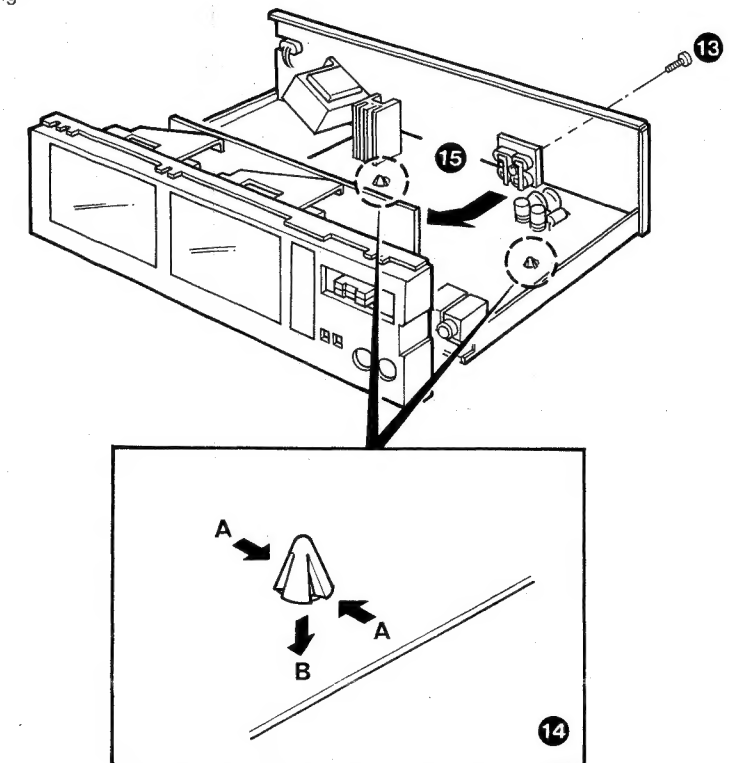


4. Remove the Key SW pcbs by relieving the projection of pcb from the hole of each hook (11) and the LED pcbs inside the cassette holder (12) as shown in the figure.

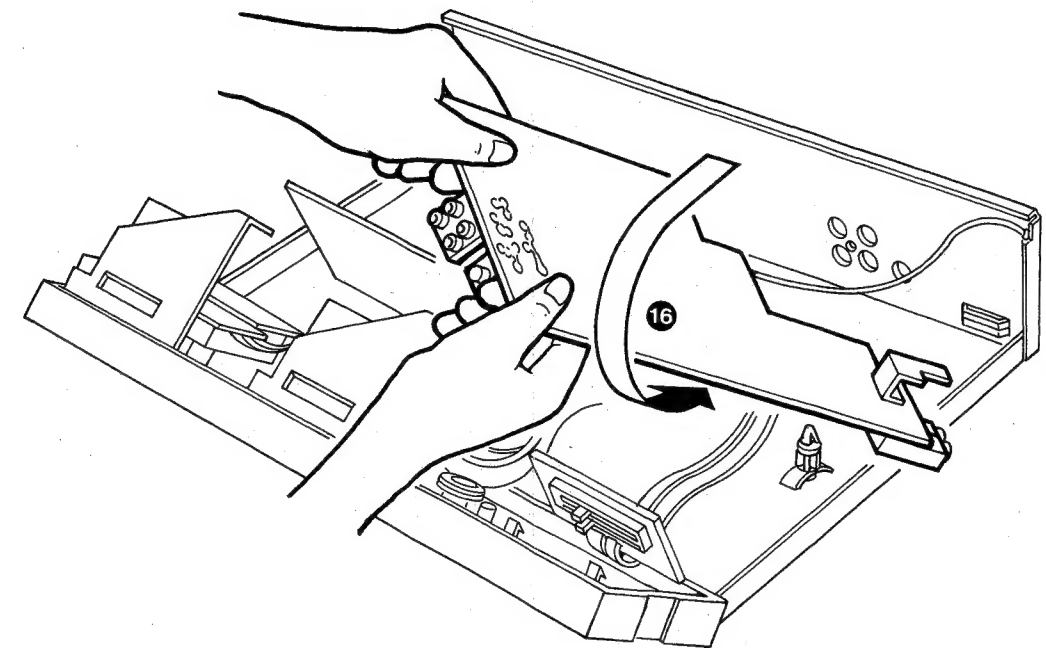


DISASSEMBLY FOR REPAIR

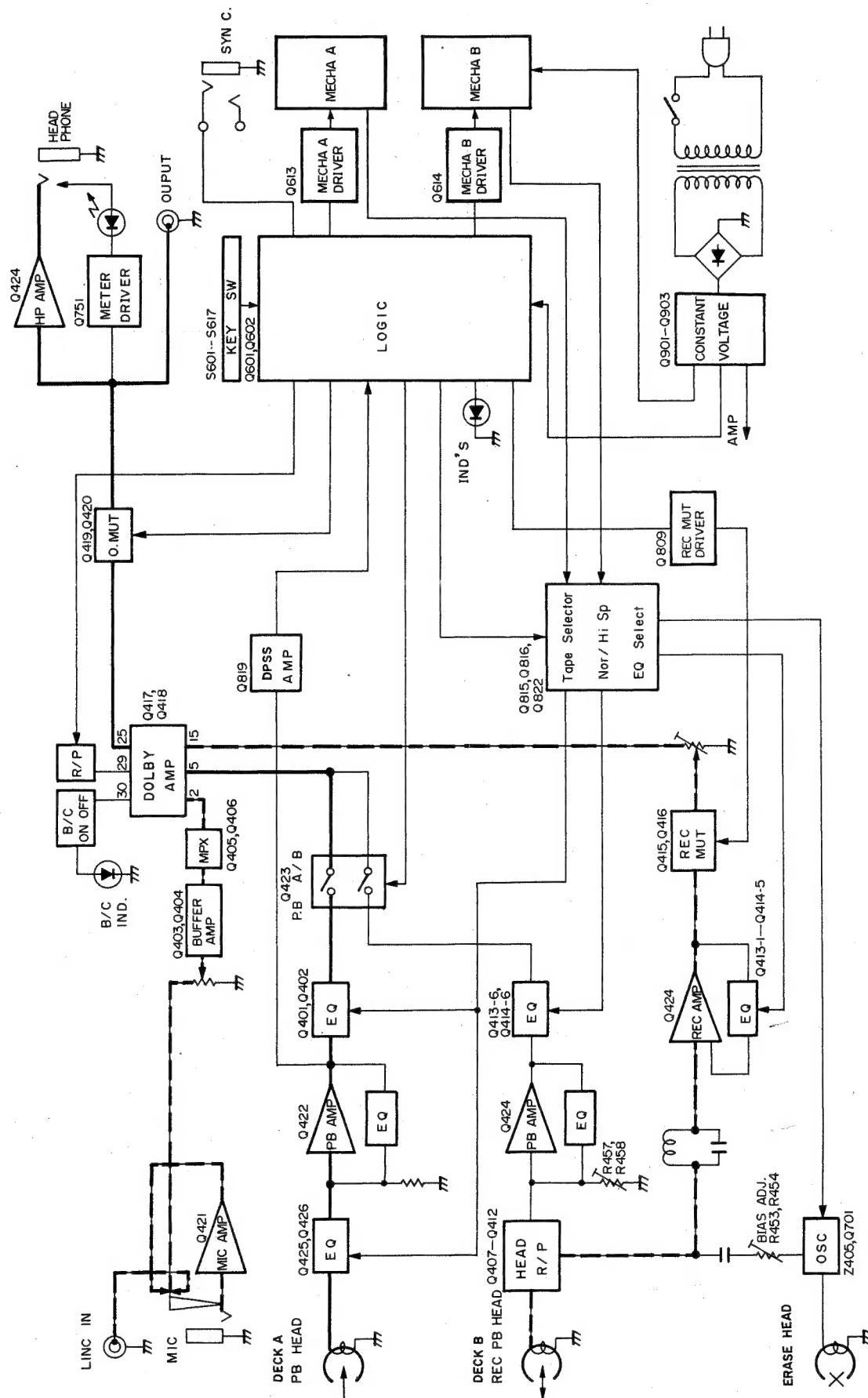
5. Remove the 2 pc supporters (14) and 1 screw fixing phone jack in rear panel (13).



6. Turn over the Main pcb (16).



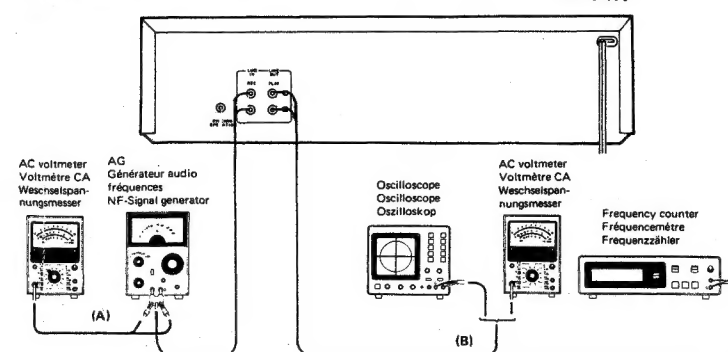
BLOCK DIAGRAM



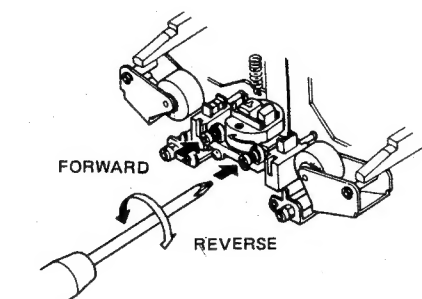
ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	CASSETTE TAPE DECK SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
CASSETTE DECK SECTION		TAPE: NORMAL, DOLBY: OFF, INPUT: LINE					0dBs=0.775V
I REC/PLAY HEAD							
[1]	DEMAGNETIZATION	—	—	POWER: OFF Remove the cassette door.	REC/PLAY head	Demagnetize the REC/PLAY head with a head demagnetizer.	
[2]	CLEANING	—	—	PLAY	REC/PLAY head erase head, capstan, pinch roller.	Clean the REC/PLAY head erase head, capstan and pinch roller using a cotton swab slightly damped with alcohol.	
[3]	AZIMUTH	MTT-256 10kHz, -20dB	(B)	PLAY	Azimuth adjustment screw	Maximum output.	
II PC BOARD							
(1)	TAPE SPEED (HI SPEED)	MTT-111	(B)	Connect a jumper between GND and TP-HISP PLAY	A DECK: R854 B DECK: R843	Adjust the tape speed so that a 6kHz signal is produced at the center of the tape.	(a)
(2)	TAPE SPEED (NORMAL)	MTT-111	(B)	NORMAL PLAY	A DECK: R855 B DECK: R844	Adjust the tape speed so that a 3kHz signal is produced at the center of the tape.	(b)
(3)	PLAYBACK LEVEL	MTT-150	(B)	PLAY	A DECK: R423 (L) R424 (R) B DECK: R457 (L) R458 (R)	Output level: -3.8dBs (500mV)	(c)
(4)	BIAS OSC	—	Connect a Frequency counter between GND and TP10.	REC/PAUSE TAPE: METAL	Z 407	105kHz	(d)
(5)	BIAS CURRENT	(A) 1kHz, -37.5dBs 12.5kHz, -37.5dBs	(B)	Adjust REC LEVEL so that the REC mo- nitor output becomes -27dBs at 1kHz, then record and reproduce signal of 1kHz and 12.5kHz in alternation.	R453 (L) R454 (R)	Record 1kHz and 12.5kHz in alternation and adjust the variable resistors which control the bias current so that the same playback level is obtained.	(e)
(6)	RECORD LEVEL	(A) 1kHz, -17.5dBs	(B)	Record and reproduce a 1kHz signal under the conditions set in (5).	R505 (L) R506 (R)	Adjust the variable resistors so that a playback level of -7dBs is obtained.	(f)
(7)	QUICK SENSOR	—	Connect a DC voltmeter between TP4 and TP5. B DECK: TP4 and TP6.	STOP	A DECK: R804 B DECK: R806	0.4V	(g)

SYSTEM CONNECTIONS



Azimuth adjustment screw



REGLAGE

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DU MAGNETO -PHONE A CASSETTE	POINTS DE L'ALIGNEMENT	ALIGNER POUR	FIG.
SECTION DU MAGNETOPHONE		TAPE: NORMAL, DOLBY: OFF, ENTREE: LINE					0dBs=0,775V
I TETE D'ENREGISTREMENT/LECTURE							
[1]	DEMAGNETISATION	—	—	POWER: OFF Eloigner la porte.	Tête D'ENREGISTREMENT/LECTURE	Demagnétiser la tête D'ENREGISTREMENT/LECTURE avec un démagnétiseur de tête.	
[2]	NETTOYAGE	—	—	PLAY	Tête D'ENREGISTREMENT/LECTURE tête d'effacement, cabestan, galetpresseur.	Nettoyer la tête D'ENREGISTREMENT/LECTURE la tête d'effacement, le cabestan et le galetpresseur avec un coton-tige légèrement imbibé d'alcool.	
[3]	AZIMUT.	MTT-256 10kHz.-20dB	(B)	PLAY	Vis d'azimut	Sortie maximer.	
II PLAQUE IMPRIMEE							
(1)	VITESSE DE DEFILEMENT (HI SPEED)	MTT-111	(B)	Connecter un cablage entre les GND et TP-HISP. PLAY	A DECK: R654 B DECK: R643	Régler la vitesse de bande de façon qu'un signal de 6kHz soit produit au centre de la bande.	(a)
(2)	VITESSE DE DEFILEMENT (NORMAL)	MTT-111	(B)	NORMAL PLAY	A DECK: R655 B DECK: R644	Régler la vitesse de bande de façon qu'un signal de 3kHz soit produit au centre de la bande.	(b)
(3)	NIVEAU DE LECTURE	MTT-150	(B)	PLAY	A DECK: R423 (G) R424 (D) B DECK: R457 (G) R458 (D)	Niveau de sortie: -3,8dBs (500mV)	(c)
(4)	POLARISATION OSCILLATEUR	—	Connecter un capteur de fréquence entre les GND et TP10.	REC/PAUSE BANDE: METAL	Z 407	105kHz	(d)
(5)	COURANT DE POLARISATION	(A) 1kHz.-37,5dBs 12,5kHz.-37,5dBs	(B)	Régler REC LEVEL façon que la sortie de moniteur REC soit de -27dBs à 1kHz, puis en enregistrer et reproduire des signaux de 1kHz et 12,5kHz en alternance.	R453 (G) R454 (D)	Enregistrer un signal de 1kHz et 12,5kHz en alternance et ajuster les résistances variables qui commandent le courant de polarité de façon à obtenir le même niveau de lecture.	(e)
(6)	NIVEAU D'ENREGISTREMENT	(A) 1kHz.-17,5dBs	(B)	Enregistrer et reproduire un signal de 1kHz dans les conditions précisées en (5).	R505 (G) R506 (D)	Ajuster les résistances variables de façon à obtenir un niveau de lecture de -7dBs.	(f)
(7)	RAPIDE CAPTEUR	—	Connecter un voltmètre CC entre les TP4 et TP5. B DECK: TP4 et TP6.	STOP	A DECK: R804 B DECK: R806	0,4V	(g)

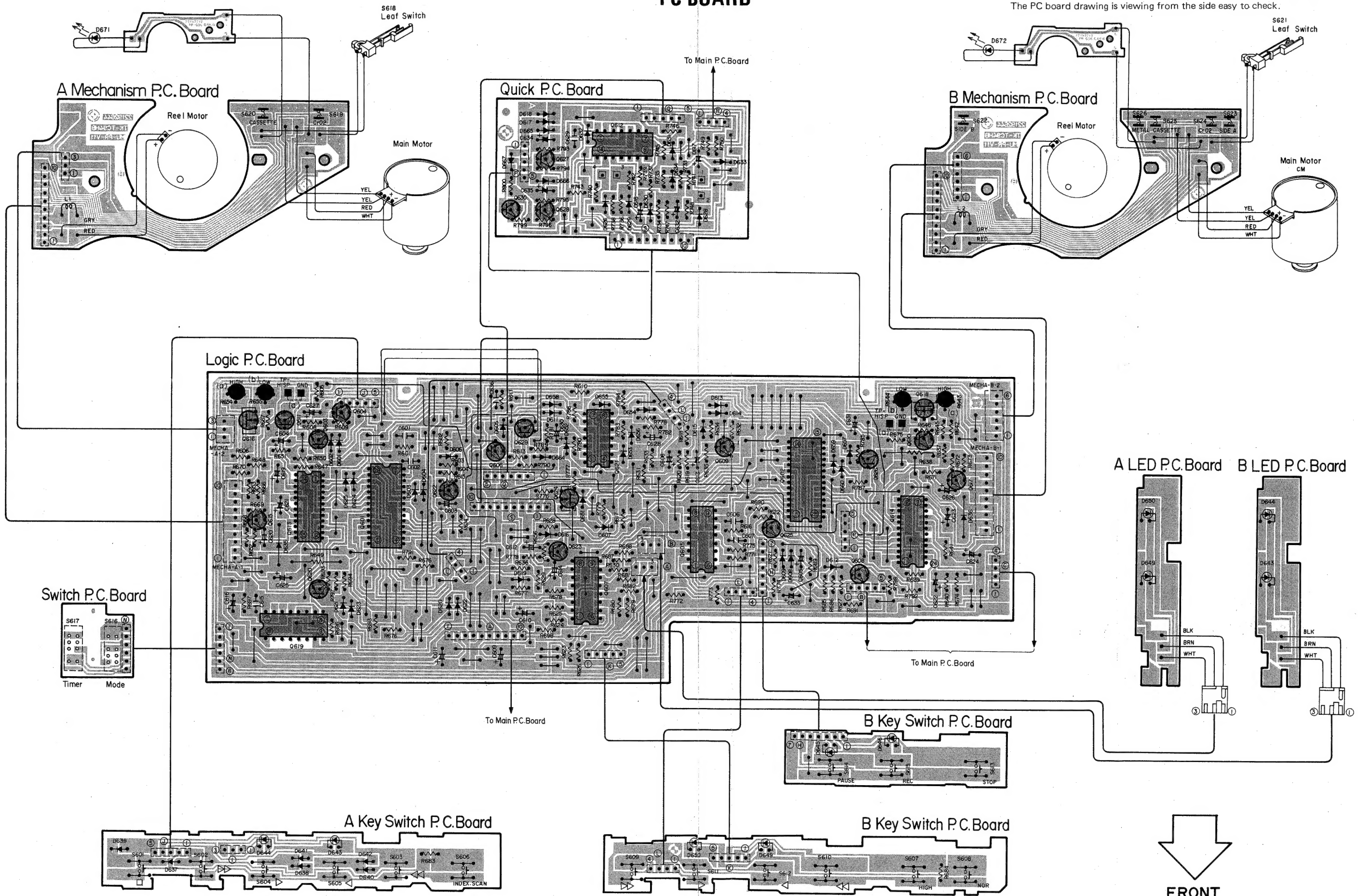
ABGLEICH

NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	KASSETTENGERÄT-EINSTELLUNG	ABGLEICH PUNKTE	ABGLEICHEN FÜR	ABB.
CASSETTEN-DECK-ABTEILUNG TAPE: NORMAL, DOLBY: OFF, EINGANG: LINE							0dBs=0,775V
I AUFNAHME/WIEDERGABE-KOPF							
[1]	ENTMAGNETISIERUNG	—	—	POWER: OFF Den Kassettenfach deckel oben herausziehen.	AUFNAHME/WIEDERGABE-Kopf	Entmagnetisierung von dem AUFNAHME/WIEDERGABE-Kopf mit einem Tonkopf Entmagnetisierungsdrössel.	
[2]	REINIGUNG	—	—	PLAY	AUFNAHME/WIEDERGABE-Kopf Löschkopf, Tonwelle, Andruckrolle.	AUFNAHME/WIEDERGABE-Kopf, Löschkopf, Tonwelle und Andruckrolle mit einem leicht mit Alkohol befeuchteten Wattebausch reinigen.	
[3]	AZIMUT-EINSTELLUNG	MTT-256 10kHz.-20dB	(B)	PLAY	Azimut-Einstellschraube	Maximal Ausgang.	
II GEDRUCKTE SCHALTPLATTE							
(1)	BANDGESCHWINDIGKEIT (HI SPEED)	MTT-111	(B)	Einen Schalterdraht zwischen GND und TP-HISP anschließen. PLAY	A DECK: R654 B DECK: R643	Die Bandgeschwindigkeit so justieren, daß ein 6kHz Signal auf der Mitte des Bands erzeugt wird.	(a)
(2)	BANDGESCHWINDIGKEIT (NORMAL)	MTT-111	(B)	NORMAL PLAY	A DECK: R655 B DECK: R644	Die Bandgeschwindigkeit so justieren, daß ein 3kHz Signal auf der Mitte des Bands erzeugt wird.	(b)
(3)	WIEDERGABE-PEGEL	MTT-150	(B)	PLAY	A DECK: R423 (L) R424 (R) B DECK: R457 (L) R458 (R)	Ausgangspegel: -3,8dBs (500mV)	(c)
(4)	VORSPANNUNG OSZILLATOR	—		Einen Frequenzmesser zwischen GND und TP10 anschließen. REC/PAUSE TAPE: METAL	Z 407	105kHz	(d)
(5)	LEERLAUFSTROM	(A) 1kHz.-37,5dBs 12,5kHz.-37,5dBs	(B)	REC LEVEL so justieren, der REC Monitorausgang -27dBs bei 1kHz wird, und danach abwechselnd Signale von 1kHz und 12,5kHz aufnehmen und wiedergeben.	R453 (L) R454 (R)	Signale von 1kHz und 12,5kHz abwechselnd aufnehmen und die Regelwiderstände, die den Vormagnetisierungsstrom regeln, so justieren, daß der gleiche Wiedergabepegel erzielt wird.	(e)
(6)	AUFNAHMEPEGEL	(A) 1kHz.-17,5dBs	(B)	Ein 1kHz Signal unter den in Punkt (5) beschriebenen Bedingungen aufnehmen und reproduzieren.	R505 (L) R506 (R)	Die Regelwiderstände so justieren, daß ein wiedergabepegel von -7dBs erzielt wird.	(f)
(7)	SCHNELL SENSOR	—	Einen Gleichspannungsmesser zwischen TP4 und TP5 anschließen. B DECK: TP4 und TP6.	STOP	A DECK: R804 B DECK: R806	0,4V	(g)

KX-94W KX-94W

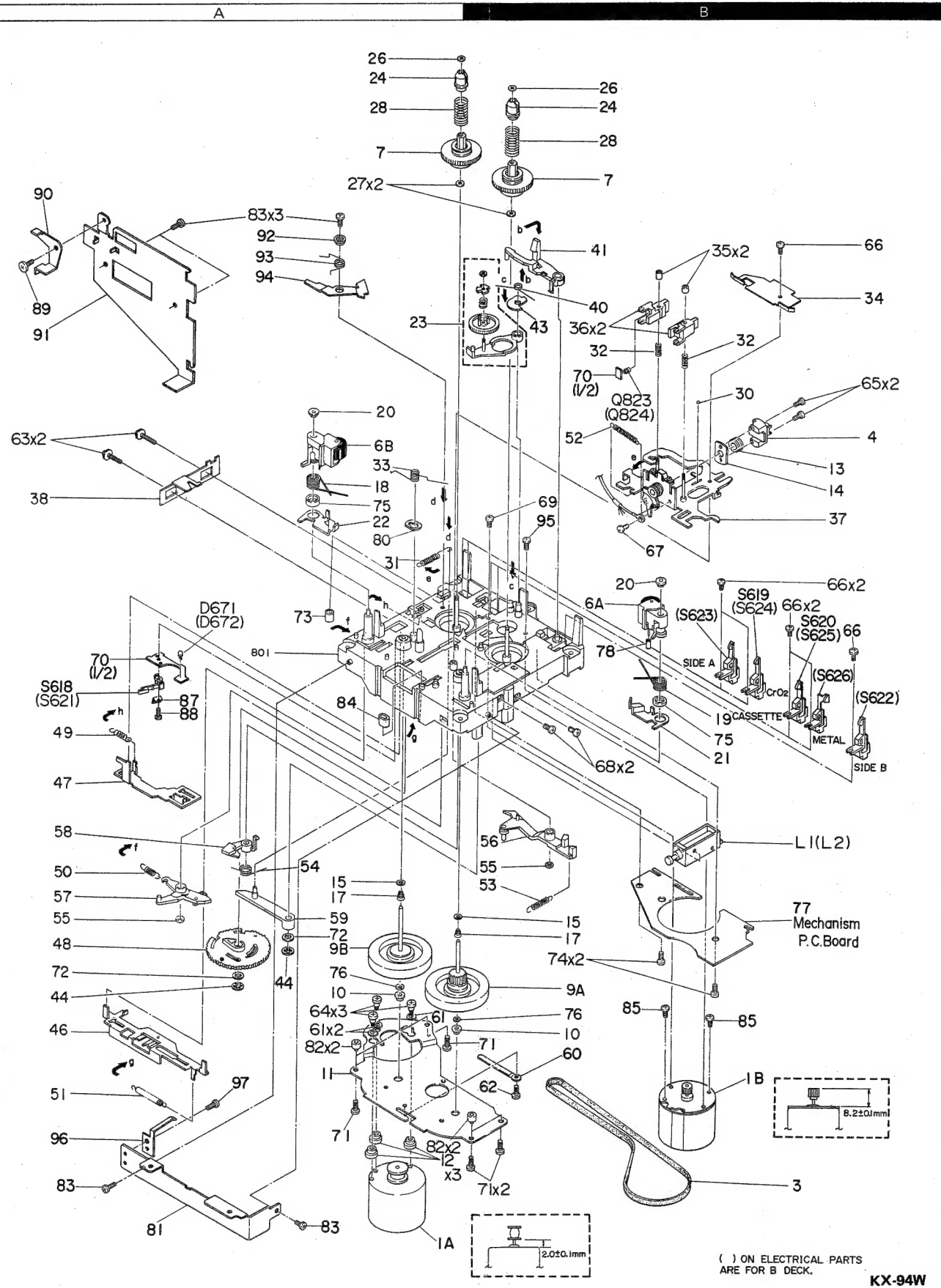
PC BOARD

Refer to the schematic diagram for the values of resistors and capacitors.
The PC board drawing is viewing from the side easy to check.



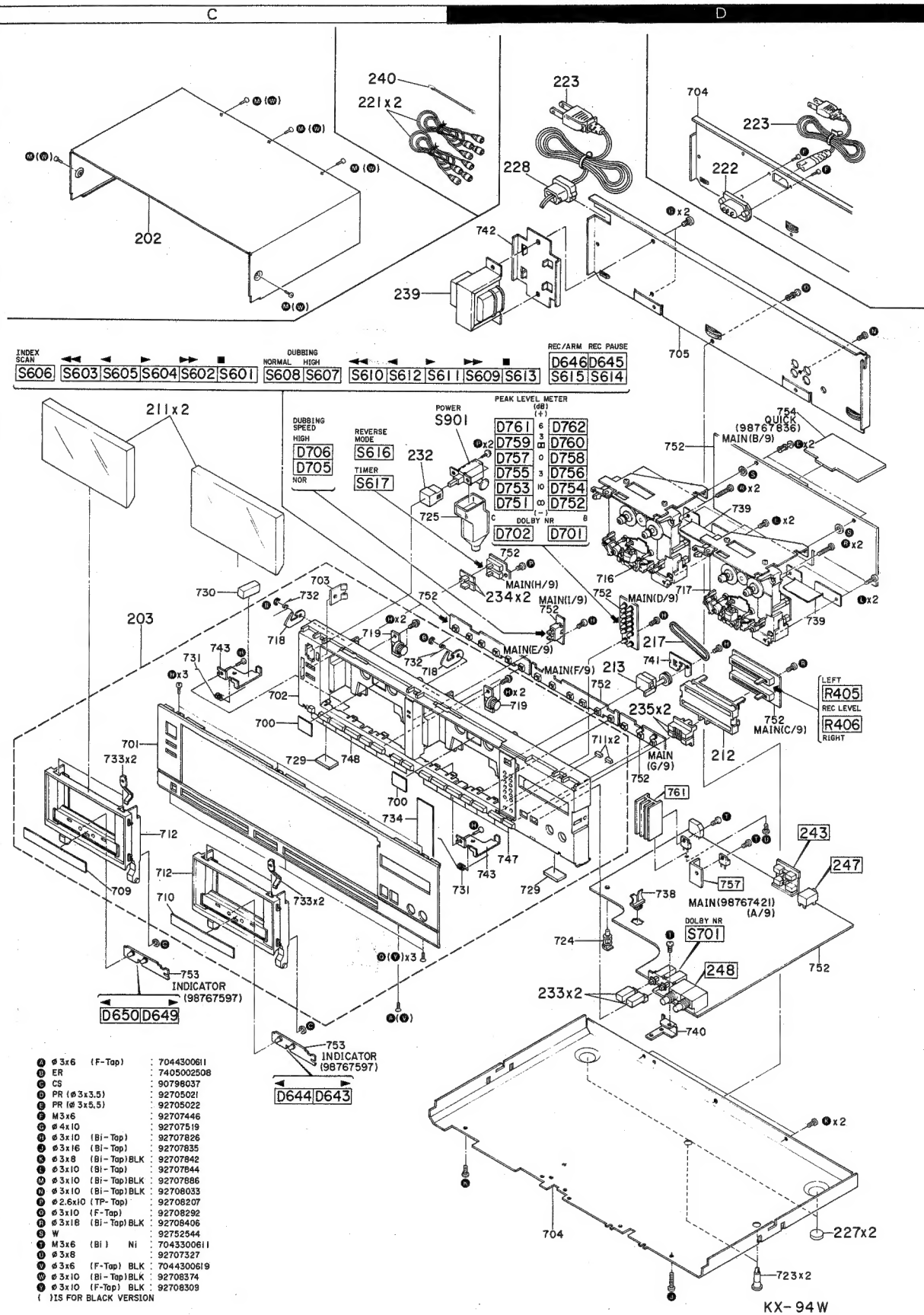
FRONT

EXPLODED VIEW (MECHANISM)

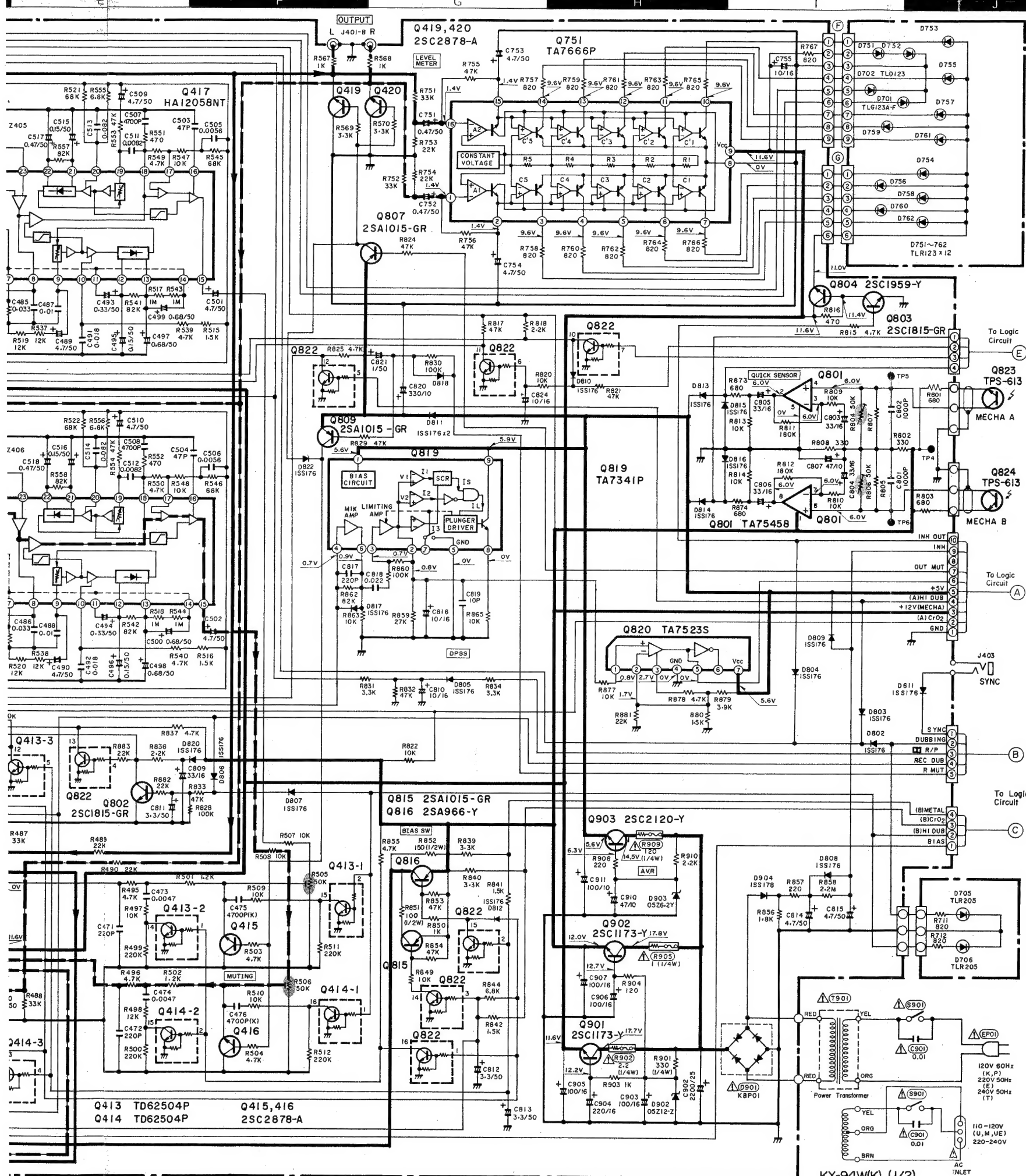


Parts with the exploded numbers larger than 700 are not supplied.

EXPLODED VIEW



Parts with the exploded numbers larger than 700 are not supplied.



Q401, 402	Q403, 404
E 0V	E 4.3V
C 0V	C 11.6V
B 0V	B 4.8V

Q405, 406
E Dolby ON 5.4V
C Dolby OFF 5.7V
B 5.8V

Q413
1 Hi Dub 4.8V
2 Others 0V
3 (B)CrO2 0.1V
4 Others 6.2V
5 Rec, Dub 4.8V
6 Rec Pause 0V
7 (B)Metal 5.1V
8 Others 0V
9 Nor 0V
10 CrO2 1.8V
11 Metal 0.7V
12 Nor 0V
13 CrO2 4.4V
14 Metal 4.1V
15 8.9
16 10~15 0V

Q414
1 Hi Dub 4.8V
2 Others 0V
3 (B)CrO2 0.1V
4 Others 6.2V
5 Rec, Dub 4.8V
6 Rec Pause 0V
7 (B)Metal 5.1V
8 Others 0V
9 Nor 0V
10 CrO2 1.8V
11 Metal 0.7V
12 Nor 0V
13 CrO2 4.4V
14 Metal 4.1V
15 Dub, Hi Dub 0.3V
16 Others 3.1V
17 8.9
18 Dub, Hi Dub 9.8V
19 Others 0.1V
20 11~15 0V

Q415, 416
E, C 0V
B Rec, Dub 0V
Others 0.7V

Q417, 418
1 11.6V
2 5.9V
3 5.9V
4 0V
5 5.7V
6 5.9V
7 5.7V
8 6.2V
9 5.9V
10 5.9V
11 0V
12 1.0V
13 1.0V
14 0V
15 0V
16 6.3V
17 5.7V
18 5.7V
19 6.0V
20 6.0V
21 1.0V
22 1.0V
23 6.3V
24 6.3V
25 6.3V
26 6.3V
27 6.3V
28 3.8V
29 Rec Pause 3.8V
30 Others 0V
31 Dolby OFF 4.3V
32 Play/Rec Pause 6.4V
33 Dolby C 7.8V

Q419, 420
E 0V
C 0V
B Hi Dub/Hi Dub Pause 0V
Dub Rec/Dub Pause 0V
Play/Rec Pause 0.7V
Others 0.7V

Q421
E 0V
C 5.0V
B 0.7V

Q422
1 1.3V
2 1.3V
3 4.0V
4 9.7V
5 0V
6 4.0V
7 1.3V
8 1.3V
9 0V

Q423
1 5.9V
2 5.9V
3 5.9V
4 5.9V
5 (B)Play 11.6V
6 Rec 0V
7 Others 0V
8 0V
9 5.9V
10 5.9V
11 5.9V
12 (A)Play Dub Pause 9.7V
13 Hi Dub Paus 9.1V
14 Dub 9.1V
15 Others 0V
16 11.6V

Q424
1 5.8V
2 5.9V
3 5.9V
4 11.6V
5 5.9V
6 6.0V
7 6.0V
8 5.9V
9 6.4V
10 11.6V
11 0V
12 6.4V
13 5.9V
14 5.9V
15 5.9V
16 5.8V

Q425, 426
E 0V
C 0V
B Hi Dub 0V
Others 0.6V

Q701
Rec 0.3V
Dub 0V
Hi Dub 0V
Others 0V
Rec 4.6V
Dub 0V
Hi Dub 12.0V
Others 0V
Rec 0.6V
Dub 0V
Hi Dub 0V
Others 0V

Q751
1 1.4V
2 1.4V
3 9.6V
4 9.6V
5 9.6V
6 9.6V
7 9.6V
8 0V
9 11.6V
10 9.6V
11 9.6V
12 9.6V
13 9.6V
14 9.6V
15 1.4V
16 1.4V

Q801
1 6.0V
2 6.0V
3 6.0V
4 6.0V
5 0V
6 6.0V
7 6.0V
8 6.0V
9 12.0V

Q802
E Hi Dub 0V
Dub 0V
Rec 0V
C Hi Dub Pause 0V
Dub Pause 0V
Rec Pause 10.1V
Others 0V
Hi Dub 0.7V
Dub 0V
Rec 0V
Others 0V

Q803
E 0V
C 11.4V
B INH 0.8V
Others 0V

Q804
E 11.0V
C 11.6V
B 11.4V

Q807
E 4.9V
Rec 0V
Dub 0V
Hi Dub 0V
Play 0V
Rec Pause 4.8V
Dub Pause 0V
Hi Dub Pause 4.2V
Others 4.2V

Q809
E 4.8V
Rec 0V
C Hi Dub 0V
Hi Dub 4.8V
Dub 4.2V
Others 4.2V

Q815
E 12.1V
C 12.0V
B Nor 11.9V
CrO2 11.2V

Q816
E 12.1V
C 12.0V
B Nor 11.9V
CrO2 11.2V

Q819
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q820
1 0.8V
2 1.7V
3 2.7V
4 0V
5 0V
6 5.6V
7 5.6V

Q822
1 Nor 0V
2 CrO2 1.8V
3 Metal 0.7V
4 CrO2 0V
5 Metal 5.1V
6 Nor 0V
7 CrO2 4.4V
8 Metal 4.1V
9 Dub 9.1V
10 (A)Play Dub Pause 9.7V
11 Hi Dub Paus 9.1V
12 Dub 9.1V
13 (B)Play Dub, Rec 9.2V
14 Dub, Rec 9.2V
15 Others 0V
16 (B)CrO2 0.1V
Others 6.2V

Q823
1 4.8V
2 0V
3 0.1V
4 6.2V
5 4.8V
6 0V
7 5.1V
8 0V
9 1.8V
10 0.7V
11 0V
12 4.4V
13 4.1V
14 0.3V
15 3.1V
16 9.8V
17 0.1V

Q824
1 4.8V
2 0V
3 0.1V
4 6.2V
5 4.8V
6 0V
7 5.1V
8 0V
9 1.8V
10 0.7V
11 0V
12 4.4V
13 4.1V
14 0.3V
15 3.1V
16 9.8V
17 0.1V

Q825
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q826
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q827
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q828
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q829
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q830
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q831
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q832
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q833
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q834
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q835
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q836
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q837
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q838
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q839
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q840
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q841
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q842
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q843
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

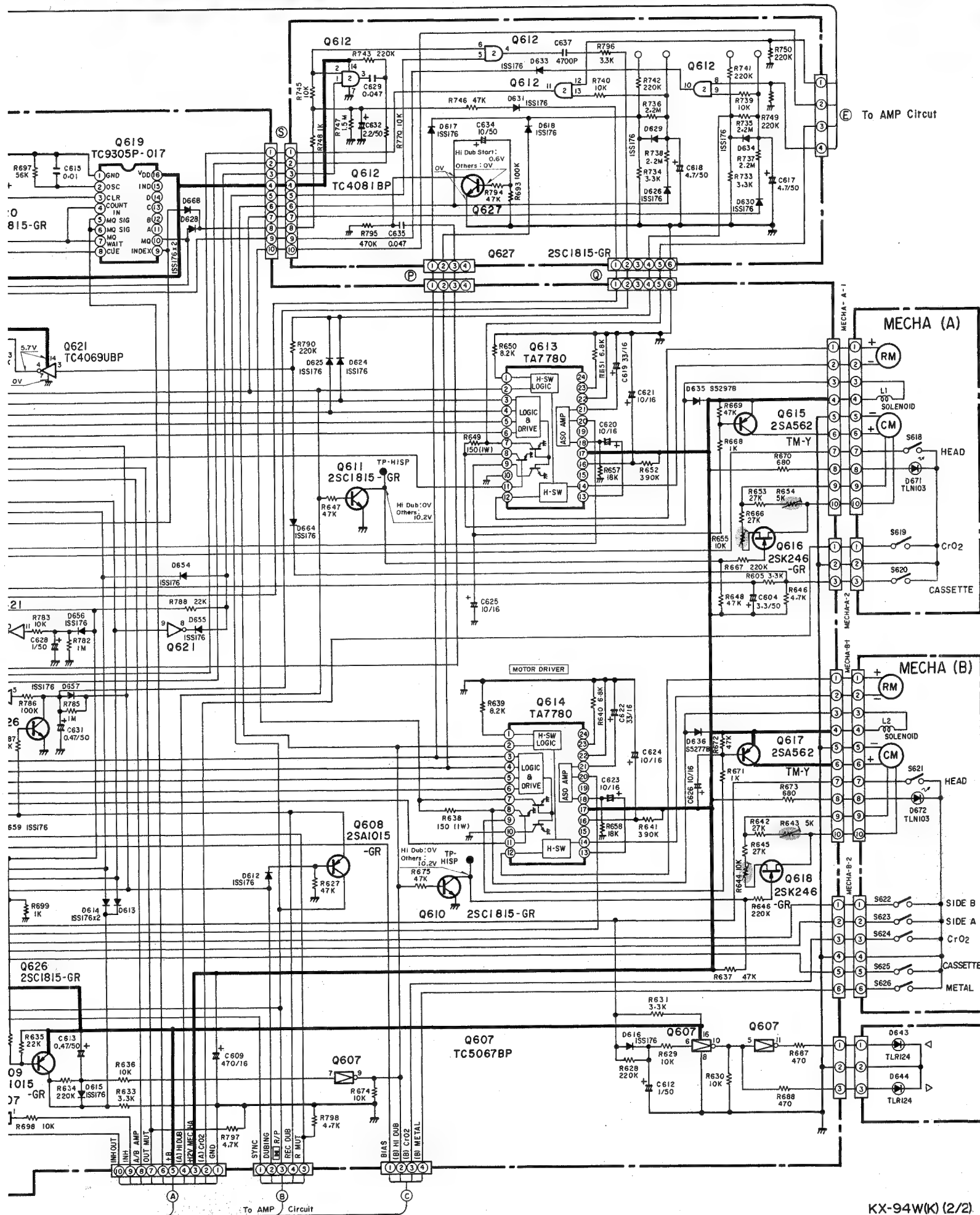
Q844
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q845
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q846
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q847
1 5.6V
2 0.8V
3 0.7V
4 0.7V
5 0V
6 0.9V
7 0V
8 0V
9 5.9V

Q848
1 5.6V
2 0.8V
3 0.7V
4 0.7V



Q601 * Pulse

1	0 V	18	0 V
2	2.8 V	19	(B) Play, Rec 5.2 V
3	5.6 V	20	Others 0 V
4	5.6 V	21	(A)(B) Play, Rec 5.0 V
5	5.6 V	22	Others 0 V
6	5.6 V	23	Play 5.0 V
7	0 V	24	Others 0 V
8	Rev 5.6 V	25	Dub 4.9 V
9	Hi Dub 4.9 V	26	Others 0 V
10	Others 0 V	27	Play 5.0 V
11	0 V	28	Others 0 V
12	2.9 V		
13	5.7 V		
14	2.9 V		
15	0 V		
16	0.2 V		
17	0 V		
18	5.2 V		
19	(B) Play 5.0 V		
20	Others 0 V		
21	Hi Dub 5.0 V		
22	(B) Rec 5.0 V		
23	Others 0 V		
24	5.7 V		

Q602 * Pulse

1	0 V	18	Hi Dub 4.9 V
2	2.8 V	19	Others 0 V
3	5.6 V	20	Rec 5.0 V
4	NOTE 1 (Q605)	21	Others 0 V
5	NOTE 1 (Q605)	22	Rec 5.0 V
6	With Tab 0 V	23	Others 0 V
7	Without Tab 5.6 V	24	R, Pause 4.9 V
8	With Tab 0 V	25	Others 0 V
9	Without Tab 5.6 V	26	Dub, Rec 4.9 V
10	Sync Rec 0 V	27	Others 0 V
11	Others 5.6 V	28	Play, Rec 5.0 V
12	5.6 V		
13	2.8 V		
14	5.7 V		
15	2.9 V		
16	0 V		
17	0.2 V		
18	0 V		
19	Rev 5.6 V		
20	Dub 4.9 V		
21	Others 0 V		
22	Rec 5.0 V		
23	Others 0 V		
24	Play 5.0 V		
25	Others 0 V		

Q603

1	Hi Dub 0 V
2	C Play Pause 5.4 V
3	Others 5.4 V

Q606

1	NO Cassette 0 V
2	Others 0.6 V

Q605

1	0 V	9	Note 1
2	0 V	10	0 V
3	0 V	11	0 V
4	NO Cassette 5.7 V	12	0 V
5	5.7 V	13	0 V
6	Note 1	14	0 V
7	Note 1	15	0 V
8	0 V	16	5.7 V

Q607

1	5.3 V	9	Hi Dub 4.8 V
2	5.3 V	10	Others 0 V
3	(A) For 4.6 V	11	(B) For 4.8 V
4	(A) Rev 0.4 V	12	(B) Rev 0 V
5	(A) For 5.5 V	13	(B) For 4.8 V
6	(B) For 4.8 V	14	(A) For 4.6 V
7	(B) Rev 0 V	15	(A) Rev 0 V
8	Hi Dub 5.5 V	16	(A) Rev 4.6 V
9	Others 5.5 V	17	0 V
10	0 V	18	0 V
11	5.3 V	19	0 V
12	5.3 V	20	5.7 V

Q608

1	Dub, Rec 4.9 V
2	Others 0 V
3	Rec 4.7 V
4	Others 0 V
5	Rec 4.1 V
6	Dub 4.4 V
7	Others 0 V

Q609

1	5.6 V
2	Hi Dub 0 V
3	Others 5.6 V
4	Hi Dub 5.3 V
5	Others 5.0 V

Q610

1	Hi Dub 0 V
2	Others 10.2 V

Q612 * Pulse

1	Dub 5.0 V
2	Others 0~1.2 V
3	Index 4.8 V
4	MO 0 V
5	Others 0 V
6	Index & Dub 5.6 V
7	Others 0 V
8	Index & Rec 5.6 V
9	SW Pushed 0 V
10	Rec 4.7 V
11	Others 0 V
12	Index 4.8 V
13	Others 0 V
14	0 V
15	0 V
16	0 V
17	NOTE 3
18	NOTE 3
19	5.7 V

Q613 * Pulse

1	3.0 V	10	0 V
2	Hi Dub 5.0 V	11	0 V
3	Others 0 V	12	Play 5.0 V
4	FF 5.1 V	13	Others 0 V
5	F, Play 5.1 V	14	R, Play 11.1 V
6	Others 0 V	15	Others 0.2 V
7	Rev 5.1 V	16	FF 0.7 V
8	R, Play 5.1 V	17	F, Play 11.1 V
9	Others 0 V	18	Others 0.2 V
10	0 V	19	0 V
11	5.3 V	20	Note 2
12	5.3 V	21	2.9 V
13	(A) For 4.6 V	22	0 V
14	(A) Rev 0.4 V	23	5.5 V
15	(A) For 5.5 V	24	5.7 V
16	(B) For 4.8 V		
17	(B) Rev 0 V		
18	(A) For 4.6 V		
19	(B) Rev 5.5 V		
20	Hi Dub 5.5 V		
21	Others 5.5 V		
22	0 V		
23	5.7 V		
24	0 V		

Q614 * Pulse

1	3.0 V	10	0 V
2	Hi Dub 4.8 V	11	0 V
3	Others 0 V	12	Play 5.0 V
4	FF 5.1 V	13	Others 0 V
5	F, Play 5.0 V	14	R, Play 11.1 V
6	Others 0 V	15	Others 0.2 V
7	Rev 5.0 V	16	FF 0.8 V
8	R, Play 5.0 V	17	F, Play 11.1 V
9	Others 0 V	18	Others 0 V
10	0 V	19	0 V
11	5.3 V	20	Note 2
12	5.3 V	21	2.9 V
13	(A) For 4.6 V	22	0 V
14	(A) Rev 0.4 V	23	5.5 V
15	(A) For 5.5 V	24	5.7 V
16	(B) For 4.8 V		
17	(B) Rev 0 V		
18	(A) For 4.6 V		
19	(B) Rev 5.5 V		
20	Hi Dub 5.5 V		
21	Others 5.5 V		
22	0 V		
23	5.7 V		
24	0 V		

Q615

1	Stop 0.7 V
2	Others 11.8 V

Q617

1	Stop 0.7 V
2	Rec/Pause 11.8 V
3	Others 11.8 V

Q619

1	0 V	9	Index 5.2 V
2	2.8 V	10	Others 0 V
3	5.7 V	11	0 V
4	5.7 V	12	0 V
5	0 V	13	0 V
6	0 V	14	0 V
7	5.7 V	15	0 V
8	5.6 V	16	5.7 V
9	Others 0 V		

Q620

1	Cue 5.6 V
2	Others 0 V
3	Cue 0.3 V
4	Others 0.6 V

Q621

1	0 V	9	Rec 5.0 V
2	5.7 V	10	Others 0 V
3	0 V	11	Hi Dub 0 V
4	5.7 V	12	Others 5.6 V
5	0 V	13	Hi Dub 4.5 V
6	5.6 V	14	Others 0 V
7	0 V	15	0 V
8	Rec 0 V	16	5.5 V
9	Others 5.6 V	17	5.7 V

Q622

1	0 V
2	(B) Rec 0.6 V
3	Others 0 V

Q623

1	5.6 V
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Q624

1	2.8 V
2	2.8 V
3	No Cassette 10.2 V
4	Others 2.2 V

Q625

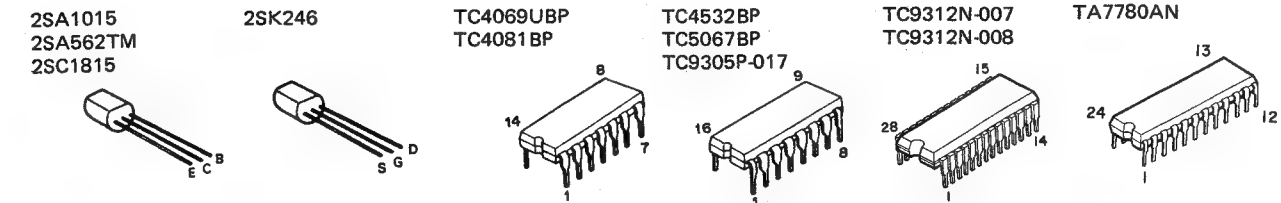
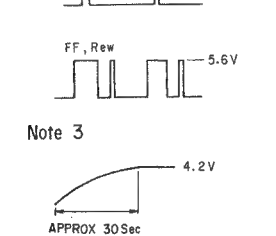
1	Sync, Rec 0 V
2	Others 5.6 V

Q627

1	0 V
2	0 V
3	Hi Dub Start 0.6 V
4	Others 0 V

Q629

1	Hi Dub 5.0 V
2	Others 0 V
3	Hi Dub Pushed Play 4.9 V
4	Others 0 V
5	Hi Dub Pushed Play 4.3 V
6	Others 5.5 V



• DC voltages are as measured with a high impedance voltmeter with a cassette loaded at playback mode. Values may vary slightly due to variations between individual instruments or/and units. Bias circuit DC voltages are as measured while in the record mode.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

PARTS LIST

× New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
KX-94W (Silver)						
202	1C	*	95864438	METALLIC CABINET	K PXE UMUE T	
203	2C	*	95899039	PANEL ASSY		
203	2C	*	95899040	PANEL ASSY		
203	2C	*	95899040	PANEL ASSY		
203	2C	*	95899053	PANEL ASSY		
211	1C	*	95872127	CASSETTE LID	KPEX UMUE	
212	2D	*	95872146	ESCUTCHEON (REC LEVEL)		
213	2D	*	95873307	TAPE COUNTER		
-		*	92904523	INSTRUCTION MANUAL (ENGLISH)		
-		*	92904523	INSTRUCTION MANUAL (ENGLISH)		
-		*	92904524	INSTRUCTION MANUAL (GERMAN)	E	
-		*	92904525	INSTRUCTION MANUAL (ENGLISH)	T	
-		*	92904527	INSTRUCTION MANUAL (FRENCH)	PEMX	
-		*	92904528	INSTRUCTION MANUAL (SPANISH)	M	
-		*	92904529	INSTRUCTION MANUAL (ARABIC)	M	
-			92957597	WARRANTY CARD	K	
-			92957599	WARRANTY CARD	UUE	
-			92957600	WARRANTY CARD	UUE	
-			92957601	WARRANTY CARD	X	
-			92957605	SERVICE DIRECTORY	UUE	
-			92957606	CAUTION CARD	U	
-			92957607	CAUTION CARD	MUE	
-			92957732	WARRANTY CARD	P	
-			92957793	WARRANTY CARD	T	
-			92957794	WARRANTY CARD	E	
-		*	92957817	WARRANTY CARD	E	
217	2D		95755581	BELT (COUNTER)		
221	1C		92164775	AUDIO CORD	UMUE X T E	
222	1D		92169037	AC INLET		
223	1D		92176588	AC POWER CORD		
223	1D		92176628	AC POWER CORD		
223	1D		92176642	AC POWER CORD	KP UMUE	
223	1D	*	92176658	AC POWER CORD		
223	1D		92176680	AC POWER CORD (INLET)		
-			92936188	POLYSTYRENE FOAMED FIXTURE(L)	T KPEX UMUE KPETX	
-			92936189	POLYSTYRENE FOAMED FIXTURE(R)		
-		*	92922326	ITEM CARTON BOX		
-		*	92922327	ITEM CARTON BOX		
-		*	92922327	ITEM CARTON BOX		
-			92941302	PROTECTION BAG	M	
-			92941312	PROTECTION BAG		
-			92941323	PROTECTION BAG		
-			92977003	RUST PREVENTING PAPER		
227	3D		95762432	FOOT		
228	1D		95844322	POWER CORD BUSHING		
-			92184230	WIRE BAND		
232	1C		95816736	KNOB ASSY (BUTTON) POWER		
233	3D	*	95886519	KNOB (BUTTON) DOLBY NR		
234	2D		95886521	KNOB (SLIDE) REVERSE MODE, TIMER		
235	2D	*	95886522	KNOB (SLIDE) REC LEVEL		

E: Scandinavia & Europe

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△ 239	1C	*	92224482	POWER TRANSFORMER	T	
△ 239	1C	*	92224483	POWER TRANSFORMER	X	
△ 239	1C	*	92224504	POWER TRANSFORMER	E	
△ 239	1C	*	92224505	POWER TRANSFORMER	KP	
△ 239	1C	*	92224506	POWER TRANSFORMER	UMUE	
A	3C		7044300611	SCREW (Ø3X6)		
B	2C	*	7405002508	E TYPE RETAINING RING		
C	3C	*	90798037	RETAINING RING		
D	1D	*	92705021	PUSH RIVET (Ø3X3.5)		
E	1D	*	92705022	PUSH RIVET (Ø3X5.5)		
F	1C		92707446	SCREW (M3X6)	ETX	
G	1C		92707446	SCREW (M3X6)	UMUE	
H	1C	*	92707519	SCREW (Ø4X10)		
J	2C, 2D		92707826	SCREW (Ø3X10)		
	3D		92707835	SCREW (Ø3X16)		
K	3D		92707842	SCREW (Ø3X8)		
L	2D	*	92707844	SCREW (Ø3X10)		
M	1C		92707886	SCREW (Ø3X10)		
N	1D		92708033	SCREW (Ø3X10)		
P	1D, 2D	*	92708207	SCREW (Ø2.6X10)		
Q	3C	*	92708292	SCREW (Ø3X10)		
R	2D	*	92708406	SCREW (Ø3X18)		
S	2D	*	92752544	WASHER		
△ S901	1D	*	92196243	PUSH SWITCH (POWER)	KPEX	
△ S901	1D	*	92196243	PUSH SWITCH (POWER)	UMUE	
△ S901	1D	*	92196654	PUSH SWITCH (POWER)	T	
240	1C		92990756	HEAD CLEANER		
KX-94W (Black)						
202	1C	*	95864477	METALLIC CABINET	K	
203	2C	*	95899041	PANEL ASSY	PXE	
203	2C	*	95899042	PANEL ASSY	UMUE	
203	2C	*	95899042	PANEL ASSY	T	
203	2C	*	95899054	PANEL ASSY		
211	1C	*	95872127	CASSETTE LID		
212	2D	*	95872118	ESCUTCHEON (REC LEVEL)		
213	2D	*	95873307	TAPE COUNTER		
-		*	92904523	INSTRUCTION MANUAL (ENGLISH)	KPEX	
-		*	92904523	INSTRUCTION MANUAL (ENGLISH)	UMUE	
-		*	92904524	INSTRUCTION MANUAL (GERMAN)	E	
-		*	92904525	INSTRUCTION MANUAL (ENGLISH)	T	
-		*	92904527	INSTRUCTION MANUAL (FRENCH)	PEMX	
-		*	92904528	INSTRUCTION MANUAL (SPANISH)	M	
-		*	92904529	INSTRUCTION MANUAL (ARABIC)	M	
-			92957597	WARRANTY CARD	K	
-			92957599	WARRANTY CARD	UMUE	
-			92957600	WARRANTY CARD	UMUE	
-			92957601	WARRANTY CARD	X	
-			92957605	SERVICE DIRECTORY	UMUE	
-			92957606	CAUTION CARD	U	
-			92957607	CAUTION CARD	UMUE	
-			92957732	WARRANTY CARD	P	
-			92957793	WARRANTY CARD	T	
-			92957794	WARRANTY CARD	E	

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-		*	92957817	WARRANTY CARD	E	
217	2D		95755581	BELT (COUNTER)		
221	1D		92164775	AUDIO CORD		
△ 222	1D		92169037	AC INLET	UMUE	
△ 223	1D		92176588	AC POWER CORD	X	
△ 223	1D		92176628	AC POWER CORD	T	
△ 223	1D		92176642	AC POWER CORD	E	
△ 223	1D		92176658	AC POWER CORD	KP	
△ 223	1D		92176680	AC POWER CORD (INLET)	UMUE	
-			92936188	POLYSTYRENE FOAMED FIXTURE(L)		
-			92936189	POLYSTYRENE FOAMED FIXTURE(R)		
-		*	92922328	ITEM CARTON BOX	T	
-		*	92922329	ITEM CARTON BOX	KPEX	
-		*	92922329	ITEM CARTON BOX	UMUE	
-			92941302	PROTECTION BAG	KPETX	
-			92941312	PROTECTION BAG		
-			92941323	PROTECTION BAG		
-			92977003	RUST PREVENTING PAPER	M	
227	3D		95762432	FOOT		
△ 228	1D		95844322	POWER CORD BUSHING		
-			92184230	WIRE BAND		
232	1C		95886654	KNOB ASSY(BUTTON) POWER		
233	3D		95886543	KNOB(BUTTON) DOLBY NR		
234	2D		95886521	KNOB(SLIDE) REVERSE MODE, TIMER		
235	2D		95886545	KNOB(SLIDE) REC LEVEL		
△ 239	1C	*	92224482	POWER TRANSFORMER	T	
△ 239	1C	*	92224483	POWER TRANSFORMER	X	
△ 239	1C	*	92224504	POWER TRANSFORMER	E	
△ 239	1C	*	92224505	POWER TRANSFORMER	KP	
△ 239	1C	*	92224506	POWER TRANSFORMER	UMUE	
B	2C	*	7405002508	E TYPE RETAINING RING		
C	3C	*	90798037	RETAINING RING		
D	1D	*	92705021	PUSH RIVET (Ø3X3.5)		
E	1D		92705022	PUSH RIVET (Ø3X5.5)		
F	1C		92707446	SCREW (M3X6)	TX	
G	1C	*	92707519	SCREW (Ø4X10)		
H	2C, 2D		92707826	SCREW (Ø3X10)		
J	3D		92707835	SCREW (Ø3X16)		
K	3D		92707842	SCREW (Ø3X8)		
L	2D	*	92707844	SCREW (Ø3X10)		
N	1D		92708033	SCREW (Ø3X10)		
P	1D, 2D	*	92708207	SCREW (Ø2.6X10)		
R	2D	*	92708406	SCREW (Ø3X18)		
S	2D	*	92752544	WASHER		
V	3C		7044300619	SCREW (Ø3X6)		
W	1C	*	92708374	SCREW (Ø3X10)		
Y	3C	*	92708309	SCREW (Ø3X10)		
△ S901	1D	*	92196243	PUSH SWITCH (POWER)	KPEX	
△ S901	1D	*	92196243	PUSH SWITCH (POWER)	UMUE	
△ S901	1D	*	92196654	PUSH SWITCH (POWER)	T	

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240	1C		92990756	HEAD CLEANER		
MAIN (98767414)						
D645	1D		TLY123	LED (REC PAUSE)		
D646	1D		TLR123	LED (REC/ARM)		
D701	2D		TLG123A	LED (DOLBY B)		
D702	2D		TLY123	LED (DOLBY C)		
D705,706	1C		TLR205	LED (DUBBING SPEED)		
D751-762	1D,2D		TLR123	LED (PEAK LEVEL METER)		
C401,402			92488109	ELECTR 1UF 50WV		
C403,404			CK45B1H221K	CERAMIC 220PF K		
C405,406			92485100	ELECTR 10UF 16WV		
C407,408			CQ92M1H272J	MYLAR 2700PF J		
C409,410		*	92321049	POLYPR 330PF J		
C411,412			92488339	ELECTR 3.3UF 50WV		
C413,414			92321164	POLYPR 220PF J		
C415,416			CC45SL1H101F	CERAMIC 100PF F		
C417,418			92485330	ELECTR 33UF 16WV		
C421,422			CQ92M1H103J	MYLAR 0.010UF J		
C423,424			92488479	ELECTR 4.7UF 50WV		
C425,426			CQ92M1H103J	MYLAR 0.010UF J		
C427,428			92488109	ELECTR 1UF 50WV		
C429,430			CK45F1H473Z	CERAMIC 0.047UF Z		
C431,432			CC45SL1H180D	CERAMIC 18PF D		
C433,434		*	92321055	POLYPR 680PF J		
C435,436			92485100	ELECTR 10UF 16WV		
C437,438			CK45B1H471K	CERAMIC 470PF K		
C439,440			CK45B1H221K	CERAMIC 220PF K		
C441,442			CK45B1H221K	CERAMIC 220PF K		
C443,444			92485330	ELECTR 33UF 16WV		
C445,446			CQ92M1H103J	MYLAR 0.010UF J		
C447,448			92488479	ELECTR 4.7UF 50WV		
C449,450			CQ92M1H103J	MYLAR 0.010UF J		
C451-454			92485100	ELECTR 10UF 16WV		
C455,456			92488108	ELECTR 0.1UF 50WV		
C457,458			CK45B1H102K	CERAMIC 1000PF K		
C459,460			92488478	ELECTR 0.47UF 50WV		
C461,462			92485330	ELECTR 33UF 16WV		
C463,464			CQ92M1H562J	MYLAR 5600PF J		
C465,466			CQ92M1H392J	MYLAR 3900PF J		
C467-470			CK45B1H103K	CERAMIC 0.010UF K		
C471,472			CK45B1H221K	CERAMIC 220PF K		
C473-476			CK45B1H472K	CERAMIC 4700PF K		
C477,478			92485101	ELECTR 100UF 16WV		
C479,480			92488109	ELECTR 1UF 50WV		
C481,482			CK45B1H221K	CERAMIC 220PF K		
C483,484			92483221	ELECTR 220UF 10WV		
C485,486			CQ92M1H333J	MYLAR 0.033UF J		
C487,488			CQ92M1H103J	MYLAR 0.010UF J		
C489,490			92488479	ELECTR 4.7UF 50WV		
C491,492			CQ92M1H183J	MYLAR 0.018UF J		
C493,494			92480006	ELECTR 0.33UF 50WV		
C495,496			92488158	ELECTR 0.15UF 50WV		
C497-500			92480008	ELECTR 0.68UF 50WV		

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C501,502			92488479	ELECTRØ 4.7UF 50WV		
C503,504			CC45SL1H470D	CERAMIC 47PF D		
C505,506			CQ92M1H562J	MYLAR 5600PF J		
C507,508			CK45B1H472K	CERAMIC 4700PF K		
C509,510			92488479	ELECTRØ 4.7UF 50WV		
C511,512			CQ92M1H822J	MYLAR 8200PF J		
C513,514			CQ92M1H823J	MYLAR 0.082UF J		
C515,516			92488158	ELECTRØ 0.15UF 50WV		
C517,518			92488478	ELECTRØ 0.47UF 50WV		
C519,520			92488479	ELECTRØ 4.7UF 50WV		
C521			92488339	ELECTRØ 3.3UF 50WV		
C522			CK45B1H221K	CERAMIC 220PF K		
C523			92488339	ELECTRØ 3.3UF 50WV		
C524			92485330	ELECTRØ 33UF 16WV		
C525			92485101	ELECTRØ 100UF 16WV		
C527			CK45F1H473Z	CERAMIC 0.047UF Z		
C528			92483221	ELECTRØ 220UF 10WV		
C529			92488339	ELECTRØ 3.3UF 50WV		
C530			92485101	ELECTRØ 100UF 16WV		
C601			CQ92M1H103J	MYLAR 0.010UF J		
C602			CK45F1H473Z	CERAMIC 0.047UF Z		
C603			92488109	ELECTRØ 1UF 50WV		
C604,605			92488339	ELECTRØ 3.3UF 50WV		
C606			CQ92M1H103J	MYLAR 0.010UF J		
C607			CK45F1H473Z	CERAMIC 0.047UF Z		
C608			92488339	ELECTRØ 3.3UF 50WV		
C609			92485101	ELECTRØ 100UF 16WV		
C610			92488109	ELECTRØ 1UF 50WV		
C611			92485471	ELECTRØ 470UF 16WV		
C612			92488109	ELECTRØ 1UF 50WV		
C613			92488478	ELECTRØ 0.47UF 50WV		
C614			92488109	ELECTRØ 1UF 50WV		
C615			CQ92M1H103J	MYLAR 0.010UF J		
C616			92488478	ELECTRØ 0.47UF 50WV		
C619			92485330	ELECTRØ 33UF 16WV		
C620,621			92485100	ELECTRØ 10UF 16WV		
C622			92485330	ELECTRØ 33UF 16WV		
C623			92485100	ELECTRØ 10UF 16WV		
C624,625			92485100	ELECTRØ 10UF 16WV		
C626			92485100	ELECTRØ 10UF 16WV		
C627			92488339	ELECTRØ 3.3UF 50WV		
C628			92488109	ELECTRØ 1UF 50WV		
C630			92488109	ELECTRØ 1UF 50WV		
C631			92488478	ELECTRØ 0.47UF 50WV		
C633			92488339	ELECTRØ 3.3UF 50WV		
C640			CK45B1H221K	CERAMIC 220PF K		
C641			CK45B1H471K	CERAMIC 470PF K		
C701			92321275	POLYPRØ 0.012UF J		
C702			92485101	ELECTRØ 100UF 16WV		
C703,704			CK45B1H103K	CERAMIC 0.010UF K		
C705			92485330	ELECTRØ 33UF 16WV		
C706			92488109	ELECTRØ 1UF 50WV		
C707			92485330	ELECTRØ 33UF 16WV		
C751,752			92488478	ELECTRØ 0.47UF 50WV		
C753,754			92488479	ELECTRØ 4.7UF 50WV		

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C801, 802 C803-806 C807 C809 C810			CK45B1H102K 92485330 92483470 92485330 92485100	CERAMIC 1000PF K ELECTRØ 33UF 16WV ELECTRØ 47UF 10WV ELECTRØ 33UF 16WV ELECTRØ 10UF 16WV		
C811-813 C814, 815 C816 C817 C818			92488339 92488479 92485100 CK45B1H221K CQ92M1H223K	ELECTRØ 3.3UF 50WV ELECTRØ 4.7UF 50WV ELECTRØ 10UF 16WV CERAMIC 220PF K MYLAR 0.022UF K		
C820 C821 C822, 823 C824 C901			92483331 92488109 CK45B1H222K 92485100 92340226	ELECTRØ 330UF 10WV ELECTRØ 1UF 50WV CERAMIC 2200PF K ELECTRØ 10UF 16WV CERAMIC 4700PF M	EX	
C901 C902 C903 C904 C905-907		*	92340226 92486222 92485101 92485221 92485101	CERAMIC 4700PF M ELECTRØ 2200UF 25WV ELECTRØ 100UF 16WV ELECTRØ 220UF 16WV ELECTRØ 100UF 16WV	UMJE	
C910 C911			92483470 92485101	ELECTRØ 47UF 10WV ELECTRØ 100UF 16WV		
243 247 248	2D 2D 3D		92163887 92198188 92198181	PHONE JACK(4P) LINE IN/OUT MINI STEREO PHONE JACK(SYNCRØ) PHONE JACK		
L401, 402 Z403, 404 Z405, 406 Z407		*	92232278 92153366 92153277 92235263	COIL COIL (BIAS TRAP) FILTER (DOLBY C) OSCILLATING COIL		
T U	2D, 3D 2D		7043300611 92707327	SCREW (M3X6) SCREW (Ø3X8)		
R405, 406 R423, 424 R453, 454 R457, 458 R505, 506	2D		92657360 92658756 92658766 92658756 92658764	POTENTIOMETER(50KA) REC LEVEL TRIMMING PØT. (50ØB)PB LEVEL A TRIMMING PØT. (200KB)BIAS CURR TRIMMING PØT. (50ØB)PB LEVEL B TRIMMING PØT. (50K)REC LEVEL		
R601 R616 R638 R643 R644		*	92550597 92550597 92570264 92658853 92658854	RD 27K G 1/4W RD 27K G 1/4W RS 150 J 1W TRIMMING PØT. (5K) HI-SPEED B TRIMMING PØT. (10K) NORM SPD B		
R649 R654 R655 R661 R662		*	92570264 92658853 92658854 92500333 92180020	RS 150 J 1W TRIMMING PØT. (5K) HI-SPEED A TRIMMING PØT. (10K) NORM SPD A JUMPER R 0 ØHM JUMPER R 0 ØHM		
R701 R804 R806 R851 R852		*	92500276 92658764 92658764 RD14BB2H101J RD14BB2H151J	FUSE RESIST 6.8 J 1/4W TRIMMING PØT. (50K)QUICK SEN A TRIMMING PØT. (50K)QUICK SEN B RD 100 J 1/2W RD 150 J 1/2W		
R902 R905		*	92500167 92500404	FUSE RESIST 2.2 J 1/4W FUSE RESIST 1.0 J 2E		

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R909		*	92500181	FUSE RESIST 120 J 2E		
S601-615	1C,1D	*	92196490	SWITCH (OP KEY)		
S616,617	1C,2C		92196628	SLIDE SWITCH (REV MODE, TIMER)		
S701	3D		92196630	PUSH SWITCH (DOLBY NR)		
D401-406			1S5178	DIODE		
D409			05Z5.6X	ZENER DIODE		
D601-609			1S5176	DIODE		
D611-616			1S5176	DIODE		
D619-625			1S5176	DIODE		
D628			1S1555V	DIODE		
D635,636			S5277B	DIODE		
D637-642			1S5176	DIODE		
D651-660			1S5176	DIODE		
D664			1S5176	DIODE		
D668			1S1555V	DIODE		
D703,704			1S5176	DIODE		
D802-818			1S5176	DIODE		
D820			1S1555V	DIODE		
D821			1S5176	DIODE		
D822			1S1555V	DIODE		
D901			KBPO1	DIODE		
D902			05Z12Z	ZENER DIODE		
D903			05Z6.2Y	ZENER DIODE		
D904			1S5178	DIODE		
Q401-404			2SC1815(Y,GR)	TRANSISTOR		
Q405,406			2SA1015(GR)	TRANSISTOR		
Q407,408			2SJ103(GR)	FET		
Q409-412			2SK246(GR)	FET		
Q413,414			TD62504P	IC(7CH TRANSISTOR ARRAY)		
Q415,416			2SC2878(A)	TRANSISTOR		
Q417,418			HA12058NT	IC(DOLBY B/C NOISE REDUCTION)		
Q419,420			2SC2878(A)	TRANSISTOR		
Q421			2SC1815(BL)	TRANSISTOR		
Q422			TA7325P	IC(2CH PRE-AMPLIFIER)		
Q423			TC4016BP	IC(BILATERAL SWITCH X4)		
Q424			TA7639P	IC(PREAMP FOR CASSETTE DECK X2)		
Q425,426			2SC1815(Y,GR)	TRANSISTOR		
Q601		*	TC9312N-007	IC(LOGIC CONTROLLER)		
Q602		*	TC9312N-008	IC(LOGIC CONTROLLER)		
Q603,604			2SC1815(Y,GR)	TRANSISTOR		
Q605			TC4532BP	IC(8BIT PRIORITY ENCODER)		
Q606			2SC1815(Y,GR)	TRANSISTOR		
Q607			TC5067BP	IC(INV BUFFER X7)		
Q608,609			2SA1015(GR)	TRANSISTOR		
Q610,611			2SC1815(Y,GR)	TRANSISTOR		
Q613,614		*	TA7780AN	IC(MECHANISM DRIVER)		
Q615			2SA562TM(Y)	TRANSISTOR		
Q616			2SK246(GR)	FET		
Q617			2SA562TM(Y)	TRANSISTOR		
Q618			2SK246(GR)	FET		
Q619			TC9305P-017	IC(LOGIC CONT/T ADV BLANK DET)		
Q620			2SC1815(Y,GR)	TRANSISTOR		
Q621			TC4069UBP	IC(INVERTER X6)		
Q622,623			2SC1815(Y,GR)	TRANSISTOR		

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Q624 Q625, 626 Q629 Q701 Q751			25J103(GR) 25C1815(Y, GR) 25A1015(GR) 25C1627A(Y) TA7666P	FET TRANSISTOR TRANSISTOR TRANSISTOR IC(SPT LED DRIVER X2)		
Q801 Q802, 803 Q804 Q807 Q809			TA75458S 25C1815(Y, GR) 25C1959NEW(Y) 25A1015(GR) 25A1015(GR)	IC(OP AMP X2) TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q815 Q816 Q819 Q820 Q822			25A1015(GR) 25A966(Y) TA7341P TA7523S TD62504P	TRANSISTOR TRANSISTOR IC(TAPE ADVANCE BLANK DETECT) IC(COMPARATOR) IC(7CH TRANSISTOR ARRAY)		
Q901, 902 Q903			25C1173(Y) 25C2120(Y)	TRANSISTOR TRANSISTOR		
INDICATOR (98767597)						
D643, 644 D649, 650	3C 3C		TLR124 TLR124	LED (DIRECTION) A DECK LED (DIRECTION) B DECK		
QUICK (98767836)						
C617, 618 C629 C632 C634 C635		*	92488479 CQ92M1H473J 92488229 92488229 CK45F1H473Z	ELECTRO 4.7UF 50WV MYLAR 0.047UF J ELECTRO 2.2UF 50WV ELECTRO 2.2UF 50WV CERAMIC 0.047UF Z		
C637			CK45B1H472K	CERAMIC 4700PF K		
D617, 618 D626 D629-631 D633, 634 Q612			1SS176 1SS176 1SS176 1SS176 TC40B1BP	DIODE DIODE DIODE DIODE IC(AND X4)		
Q627			25C1815(Y, GR)	TRANSISTOR		
CASSETTE MECHANISM ASS'Y					(95709188 : A) (95709187 : B)	
1A 1B 3 4 4	3A 3B 3B 2B 2B	*	95791900 95791904 95759043 92217473 92219011	MOTOR ASSY (MAIN) MOTOR ASSY (REEL) BELT COMBINATION HEAD (R/P, ERASE) COMBINATION HEAD (R/P, ERASE)		A B
6A 6B 7 9A 9B	2B 2A 1A, 1B 3B 3A		95717600 95797022 95754483 95797069 95797070	LEVER ASSY (PINCH R) LEVER ASSY (PINCH L) REEL DRUM FLYWHEEL ASSY (R) FLYWHEEL ASSY (L)		
10 11 12 13 14	3A, 3B 3A 3A 2B 2B		95725456 95737115 95761238 95761450 95761481	BEARING MOUNTING HARDWARE (MOTOR T) CUSHION (MOTOR) CUSHION (MOTOR) CUSHION (PLATE)		
15 17 18 19	2A, 3B 2A, 3B 2A 2B		95764486 95777071 95778190 95778198	WASHER (2.5X5X0.25) SPRING (FORWARD) SPRING (P LEVER L) SPRING (P LEVER R)		

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20	1A, 2B		95783226	BUSHING		
21	2B		95784212	LEVER (ASSIST P R)		
22	2A		95784213	LEVER (ASSIST P L)		
23	1A		95756486	GEAR ASSY		
24	1A, 1B		95754436	COLLAR (REEL DISK)		
26	1A, 1B		95766050	WASHER (4X1.6XD.5)		
27	1A		95766223	WASHER (2.1X5XD.5)		
28	1A, 1B		95777418	SPRING (REEL)		
30	1B		95757132	STEEL BALL (DG)		
31	2A		95776721	SPRING (ASSIST)		
32	1B		95777404	SPRING (T-GUIDE)		
33	2A	*	95778211	SPRING (PLAY LEVER A)		
34	1B		95779427	SPRING (HOLD)		
35	1B		95783258	NUT (ADJUST)		
36	1B		95783391	TAPE GUIDE		
37	2B		95797037	SLIDER ASSY (HEAD)		
38	2A	*	95749097	SLIDER (SUB EJECT G)		
40	1B		95778199	SPRING (HOLDER)		
41	1B		95784206	LEVER (HOLDER A)		
43	1B		95734532	STOPPER (T UP)		
44	3A		90798033	RING		
46	3A		95749060	SLIDER (REVERSE)		
47	2A		95749061	SLIDER (DPSS)		
48	3A		95756454	GEAR ASSY (CAM)		
49	2A		95776769	SPRING (DPSS)		
50	2A		95776860	SPRING (REVERSE LEVER)		
51	3A		95776772	SPRING (REVERSE)		
52	2B		95776773	SPRING (SHIFT)		
53	2B		95776793	SPRING (CAM LOCK)		
54	2A		95778192	SPRING (PLAY LOCK)		
55	3A, 2B		95783239	BUSHING		
56	2B		95791936	LEVER (CAM LOCK ASSY)		
57	2A		95784192	LEVER (REVERSE)		
58	2A		95784208	LEVER (PLAY LOCK G)		
59	3A		95784209	LEVER (PLAY)		
60	3B		92184188	WIRE HOLD		
61	3A		7400104011	WASHER (Ø4)		
62	3B		92707350	SCREW (2.6X5)		
63	2A		92707825	SCREW (2.6X6)		
64	3A		92707747	SCREW		
65	1B		92702173	SCREW (1.4X6)		
66	1B, 2B		92708040	SCREW (2X5)		
67	2B		7043200311	SCREW (2X3)		
68	2B		7043260411	SCREW (2.6X4)		
69	2B		92701285	SCREW (2.6X6)		
70	2A, 1B		92192702	PRINTED WIRING BOARD (LED)		
71	3A, 3B		92707876	SCREW (2.6X12)		
72	3A		7400103011	WASHER (Ø3)		
73	2A		95761459	CUSHION (HK)		
74	3B		92707301	SCREW (2.6X8)		
75	2A, 2B		95726762	SPACER (PR)		
76	3A, 3B		95766043	WASHER (2.5X6XD.5)		
77	3B		92192644	PRINTED WIRING BOARD (MAIN)		
78	2B		95726665	SPACER (G ASS)		
80	2A		95726753	SPACER (STOP)		

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81	3A		95737141	MOUNTING HARDWARE (MECH)		
82	3A		95726757	SPACER (M MOUNT)		
83	1A, 3A		92707913	SCREW (2.6X6)		
84	2A		95761535	CUSHION (PR)		
85	3B		92708382	SCREW (2.6X3)		
87	2A		95732380	GUIDE (WIRE)		
88	2A		92708423	SCREW (2X6)		
89	1A	*	92708477	SCREW		
90	1A	*	95747250	LEVER		
91	1A	*	95737140	MOUNTING HARDWARE		
92	1A	*	95753384	COLLAR (EJECT)		
93	1A	*	95778270	SPRING (EJECT)		
94	1A	*	95747251	LEVER		
95	2B	*	92708399	SCREW (2.6X6)		
96	3A	*	95779532	SPRING		
97	3A		92707366	SCREW (2.6X6)		
L1	2B	*	92147278	SOLENOID		A
L2	2B	*	92147278	SOLENOID		B
S618	2A		92196597	LEAF SWITCH		A
S619, 620	2B		92196538	SWITCH (CASSETTE)		A
S621	2A		92196597	LEAF SWITCH		B
S622-625	2B		92196538	SWITCH (CASSETTE)		B
S626	2B		92196539	SWITCH (METAL)		B
D671	2A		TLN103	LED		A
D672	2A		TLN103	LED		B
Q823	1B		TPS613	PHOTO TRANSISTOR		A
Q824	1B		TPS613	PHOTO TRANSISTOR		B

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SPECIFICATIONS

Type.....	Auto reverse double cassette deck
Track System.....	4-track, 2-channel stereo/mono, recording/playback
Recording System.....	AC bias system (Bias frequency: 105 kHz)
Erasing System.....	AC system
Tape Speed.....	4.76 cm/sec (1-7/8 ips)
Heads.....	Hard permalloy playback and record/Double gap ferrite erasing head x 1 Hard permalloy playback head x 1
Motor.....	Electronically-controlled DC motor x 2 (for capstan) DC motor x 2 (for reel)
Fast Winding Time.....	Approx. 95 seconds with C-60 tape
Frequency Response:	
Normal Tape.....	20 Hz to 15,000 Hz (30 Hz to 14,000 Hz, ± 3 dB)
CrO ₂ Tape.....	20 Hz to 16,000 Hz (30 Hz to 15,000 Hz, ± 3 dB)
Metal Tape.....	20 Hz to 18,000 Hz (30 Hz to 16,000 Hz, ± 3 dB)
Signal-to Noise Ratio:	
Dolby C Type NR ON.....	73 dB (Metal tape)
Dolby B Type NR ON.....	63 dB (Metal tape)
Dolby NR OFF.....	56 dB (Metal tape)
Harmonic Distortion.....	0.5% (at 1 kHz, 0 VU with metal tape)
Wow and Flutter.....	0.06% (W.R.M.S), ± 0.16% (DIN)
Input sensitivity/Impedance:	
LINE x 2.....	70 mV/47 kohms
MIC x 1.....	0.5 mV/4 kohms
Output Level/Load Impedance:	
LINE x 2.....	360 mV/2.5 kohms
Headphone x 1.....	0.1 mW/8 ohms
Power Consumption.....	24W
Power Requirements.....	AC 120V, 60 Hz: U.S.A. and Canada models AC 240V, 50 Hz: UK and Australia models AC 220V, 50 Hz: European models AC 120V/220 – 240V (Switchable), 50/60 Hz: Other countries
Dimensions.....	W: 420 mm (16-17/32") H: 115 mm (4-17/32") D: 270 mm (10-5/8")
Weight.....	4.6 kg (10.1 lb)
Supplied Accessories.....	Audio connection cords x 2
Reference Tapes.....	Normal: KENWOOD ND/ND-x60, TDK AD/AD-x60 CrO ₂ : KENWOOD CD-60, TDK SA-60 Metal: KENWOOD MD-60, TDK MA-R-60

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Note :

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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KENWOOD

KX-94W

SERVICE MANUAL

SUPPLEMENT

DESCRIPTION OF MECHANISM OPERATION

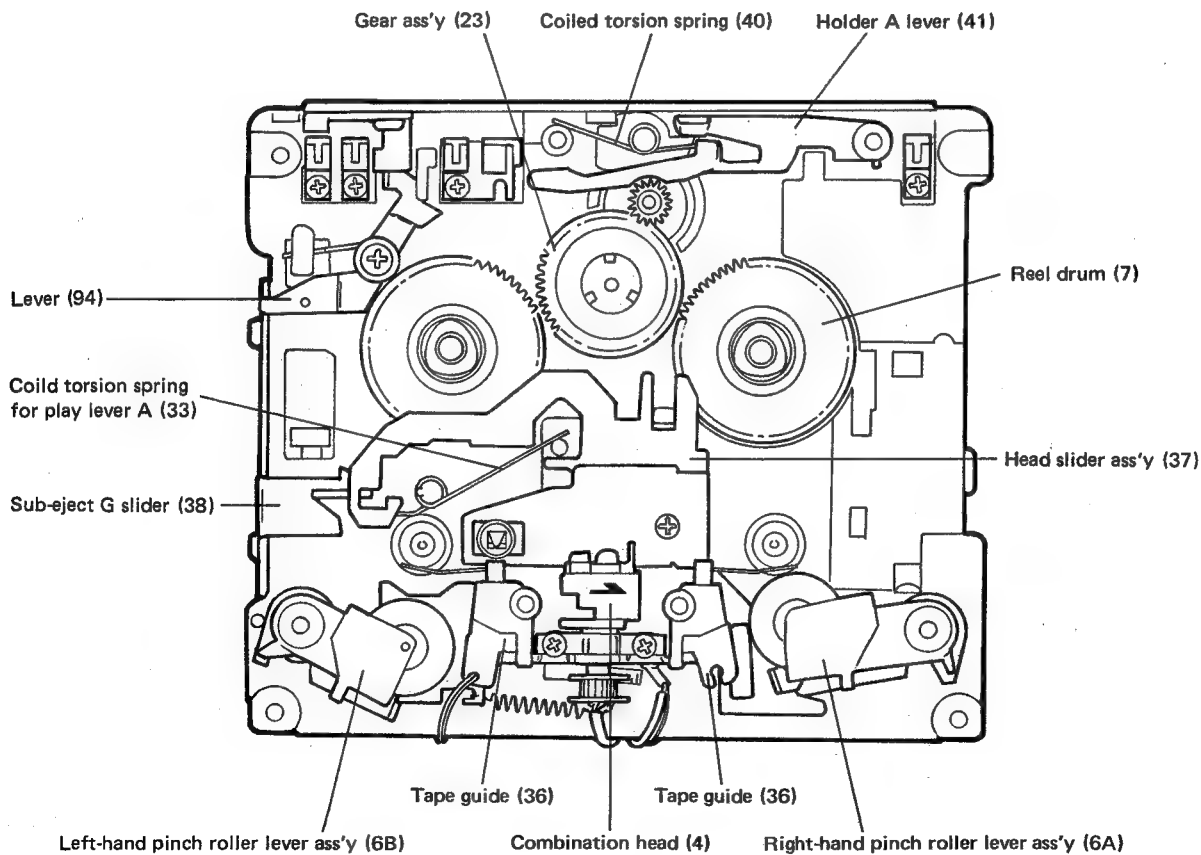
The KX-94W has the auto-reverse mechanism. It is driven by two motors and one solenoid.

- Reel motor ass'y
The reel motor drives the reel drum to take up tape.
- Main motor ass'y
This motor drives the flywheel, head slider, and right-hand and left-hand pinch roller levers, and selects the rotary head position.

- Solenoid

The solenoid is interlocked with the main motor ass'y. It selects and maintains the action of the mechanism.

This Service Manual describes the operations of the mechanism in the KX-94W B Deck. Please file this additional manual together with the basic Service Manual.



Front view of Mechanism

OPERATIONS IN EACH MODE

Wind Mechanism

1. Forward play (FF)

- 1) When electricity is supplied to the reel motor ass'y (1B), the motor gear rotates in the direction of the arrow.
- 2) This rotates the gear ass'y (23) in the direction of the arrow. The force of the coiled torsion spring (40) in the gear ass'y (23) (free cushioning force) is applied to the winding lever. The force of the motor gear rotation automatically moves the winding lever in the direction of the arrow (A).
The gear ass'y (23) is engaged with either or both of the right-hand and left-hand reel drums (7). The load of the reel drums (7) (SVP load) and tape load moves the gear ass'y (23) in the direction of the arrow (A).

Note: Earlier models have no free cushioning function.

- 3) This motion applies the winding load and the right-hand reel drum (7) is rotated.
PLAY or FF is selected by the difference of voltage applied to the reel motor ass'y (1B).
The play torque, FF time and FF torque are set by the logic. So, they require no setting or adjustment. (See Fig. 1).

2. Reverse play (REW)

- 1) When the direction of electricity supplied to the reel motor ass'y (1B) is reversed, the motor rotates in the opposite direction to drive the left-hand reel drum (7).
Play torque, REW time and REW torque are set by the logic as in forward play mode.

3. Structure of Reel drum

- 1) Fig. 3 shows the structure of the reel drum (7). The coiled compression spring for the reel stand secures backward tension and provides clearance for the hub when the cassette is loaded.
- 2) If the plain washer (27) is not mounted in the mechanism ass'y, uneven torque will be applied during operation.
- 3) Apply molibdenum grease to the contact surfaces between the reel stand collar (24) and plain washer (26). Apply grease to the reel stand shaft.

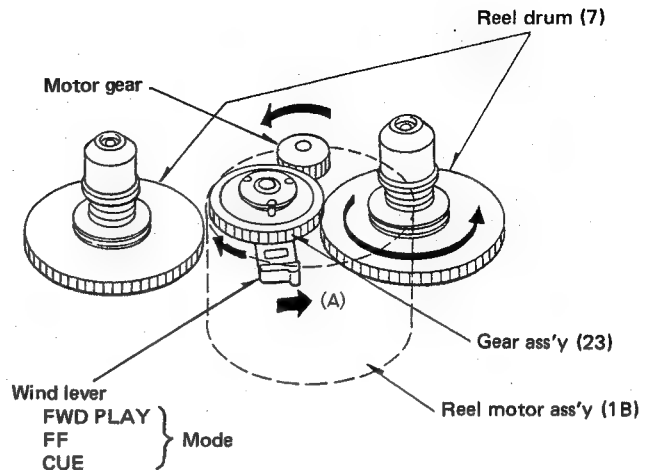


Fig. 1

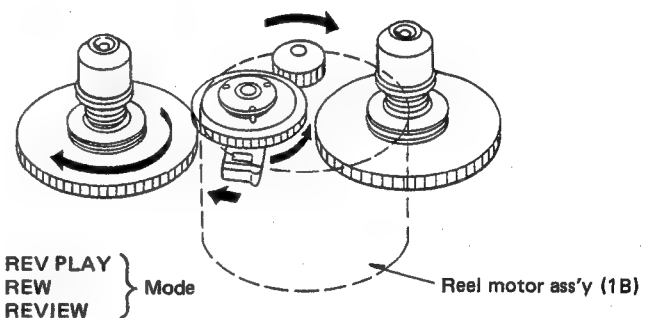


Fig. 2

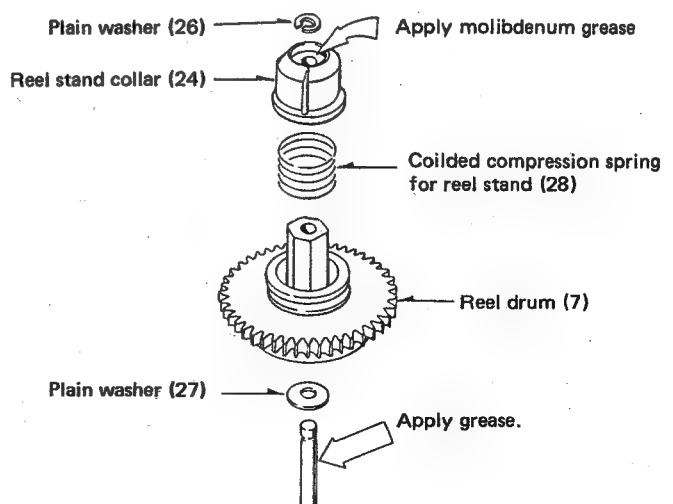


Fig. 3

Head Slider Drive Mechanism

1. Forward play

Fig. 4 illustrates the head slider mechanism immediately after half-mounting of the cassette. At this time, the combination head B (4) faces in the forward direction. The boss (a) on the cam lock ass'y lever (56) comes to the wall (a) of the cam gear ass'y (48) and stops there, as seen in Fig. 5. The notch (near (k)) in the cam gear ass'y

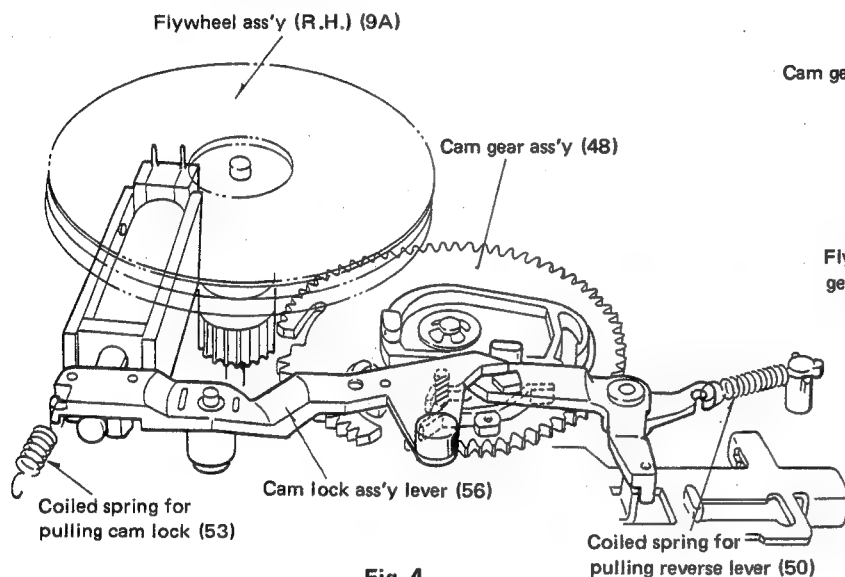


Fig. 4

- 2) At the same time, voltage shown in Fig. 7 is applied to the solenoid (L2). The iron core of the solenoid (L2) is attracted and the cam lock ass'y lever (56) rotates clockwise, as shown in Fig. 6.
- 3) The boss of the cam lock ass'y lever (56) kicks the portion (b) of the outer wall to rotate the cam gear ass'y (48) a little in the direction of the arrow, as shown in Fig. 7.
- 4) As the cam gear ass'y (48) rotates a little, the por-

tion (k) of the gear meshes with the R.H. flywheel ass'y gear (9A). In this condition, the gears are not engaged.

- 1) If the forward play button is pressed, electricity is supplied to the main motor ass'y (1A), and the R.H. and L.H. flywheel assemblies (9A) and (9B) start rotating.

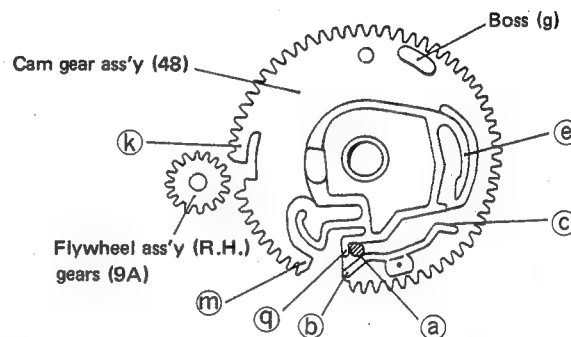


Fig. 5

tion (k) of the gear meshes with the R.H. flywheel ass'y gear (9A). As a result, the cam gear ass'y (48) is rotated by the R.H. flywheel ass'y (9A).

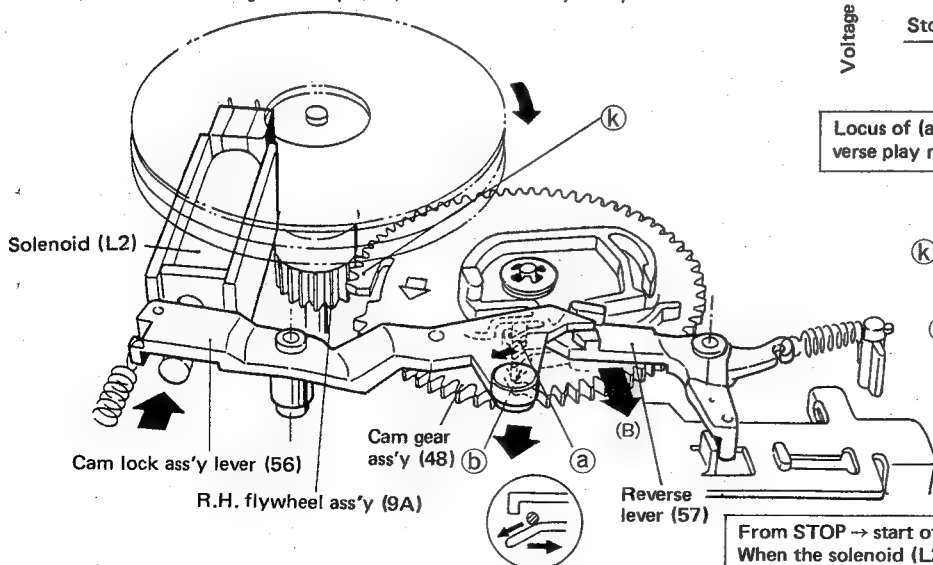
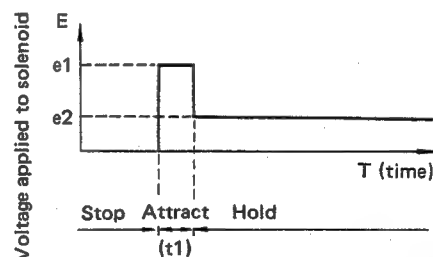


Fig. 6

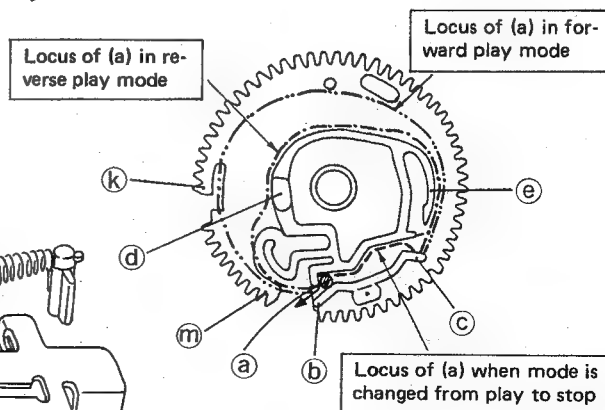
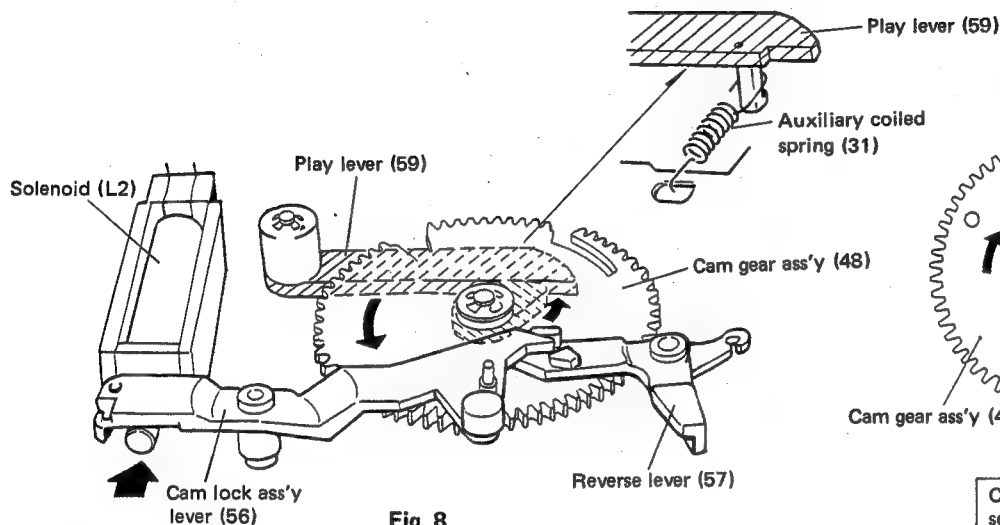


Fig. 7

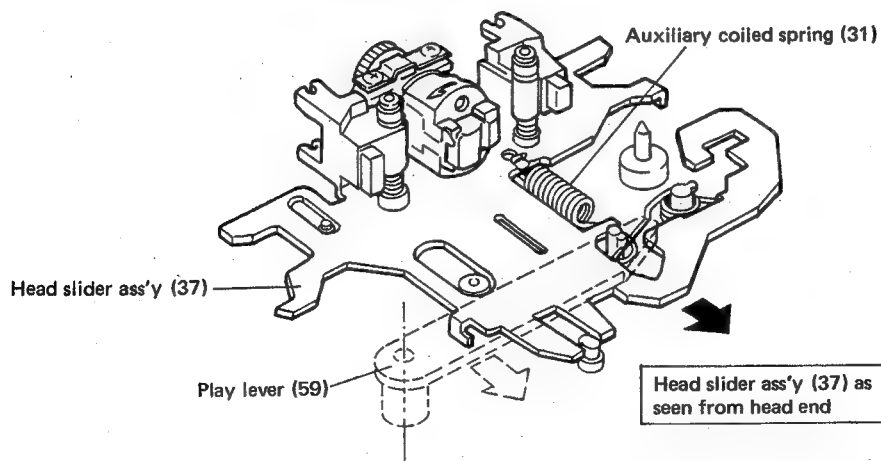
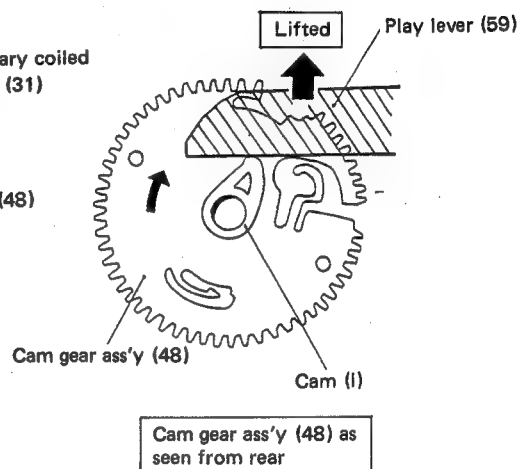
From STOP → start of PLAY
When the solenoid (L2) is turned on, the cam gear ass'y (48) is rotated a little.

5) In addition to the action described in 3) above, the cam lock ass'y lever (56) rotates the reverse lever (57) counterclockwise. After the voltage e_1 is applied to the solenoid (L2) for the time t_1 , holding voltage e_2 is applied. As a result, the cam lock ass'y lever (56) and reverse lever (57) are held at that position. (See Figs. 8, 14 and 15.)

6) As the cam gear ass'y (48) rotates as described in 4) above, the cam portion (1) lifts the play lever (59) (See Fig. 9) and at the same time the auxiliary coiled spring (31) pulls the head slider ass'y (37) upwards. (See Fig. 10.)



The cam gear ass'y (48) continues to rotate in forward play mode. (In reverse play mode, the cam gear ass'y (48) starts rotating after reversing.) This lifts the play lever (59). The auxiliary coiled spring (31) on the boss at the bottom of the play lever (59) pulls the head slider ass'y (37) upwards.



- 7) At this time, the head slider ass'y (37) lifts the R.H. pinch roller lever ass'y (6A), as illustrated in Figs. 11 and 12.

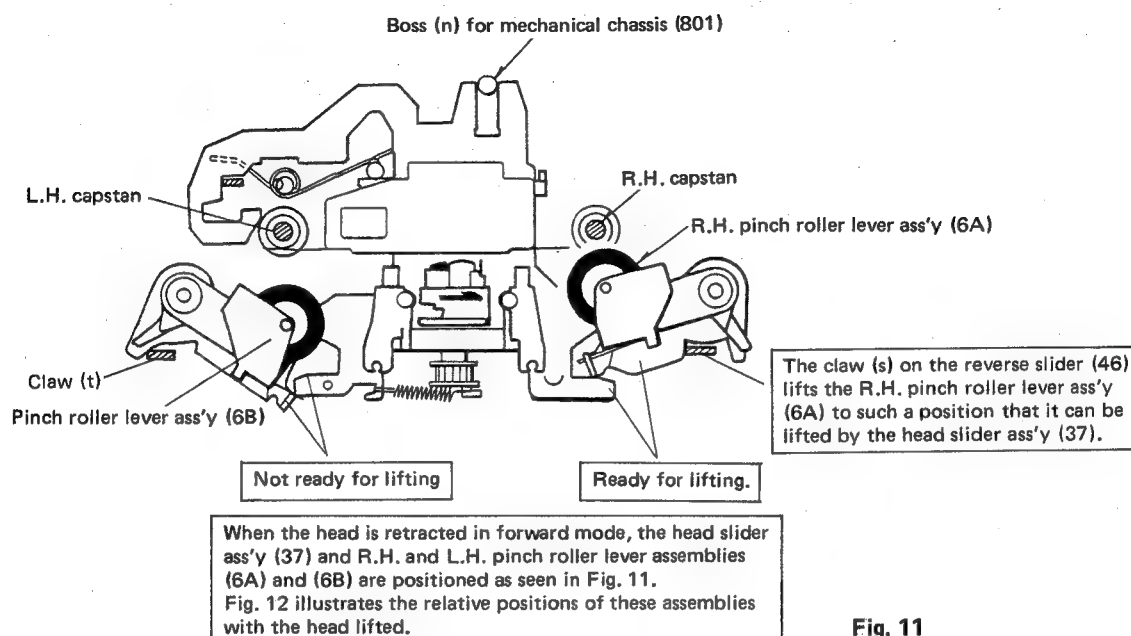


Fig. 11

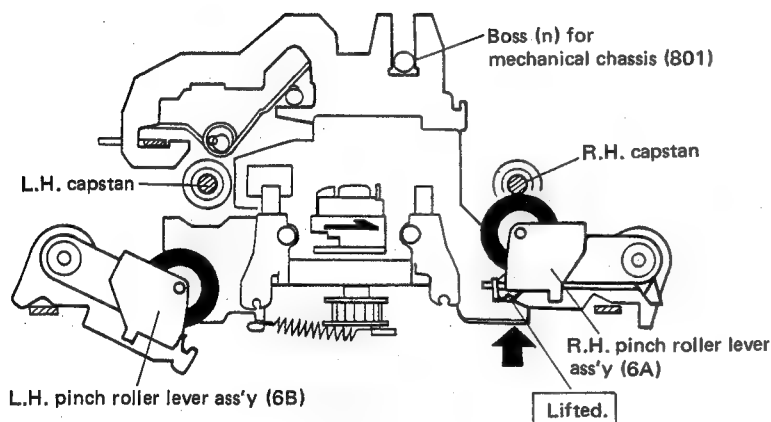


Fig. 12

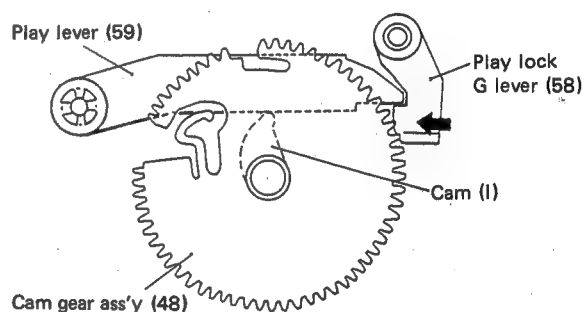


Fig. 13

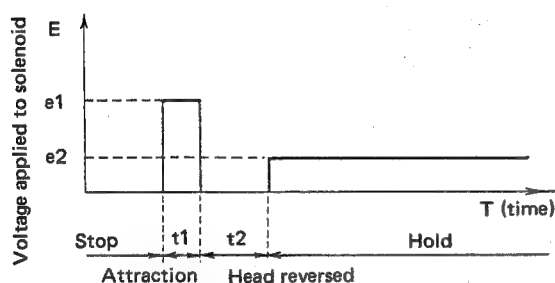
- 8) When the cam (1) on the cam gear ass'y (48) lifts the play lever (59) to the highest position, the play lever (59) is locked by the play lock G lever (58), as seen in Fig. 13.
- 9) As the cam gear ass'y (48) rotates further, its wall (c) is brought into contact with the boss (a) on the cam lock ass'y lever (56). The notch (near (m)) in the gear of the cam gear ass'y (48) approaches the gear of the R.H. flywheel ass'y (9A) until the rotation of the R.H. flywheel ass'y (9A) ceases to be transmitted to the cam gear ass'y (48). Thus, the cam gear ass'y (48) stops rotating. (See Fig. 18).

- 10) As a result, the head slider ass'y (37) is closely fitted to the boss (n) of the mechanical chassis (801) while the R.H. pinch roller lever ass'y (6A) is closely fitted to the capstan. Now, the mechanism is ready for forward play. (See Fig. 12.)
- Fig. 7 shows the locus of the boss (a) for the cam lock ass'y lever (56) with respect to the cam gear ass'y (48).

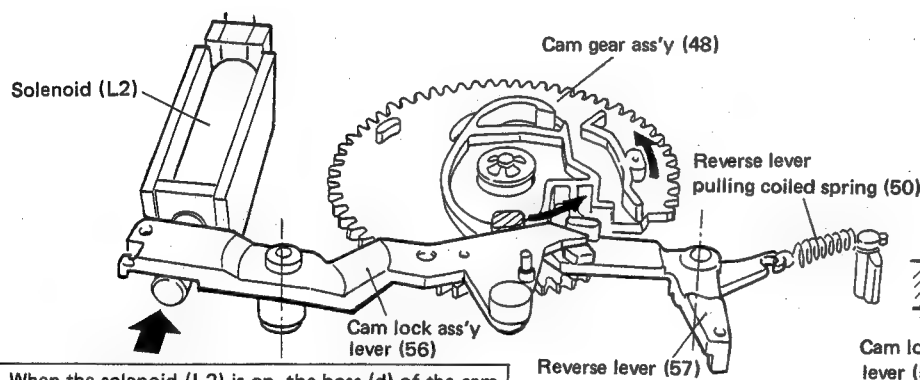
2. Reverse Play Mode

This chapter describes reverse play immediately after the half-mounting of the cassette. (The head faces forward.)

- 1) When the reverse play button is pressed, electricity is supplied to the main motor ass'y (1A) as in forward play mode and the R.H. and L.H. flywheel assemblies (9A) and (9B) start rotating.
- 2) At the same time, voltage e_1 shown in the figure below is applied to the solenoid (L2) for the time t_1 . The iron core of the solenoid (L2) is attracted and the cam lock ass'y lever (56) rotates clockwise, as shown in Fig. 6.



- 3) As in forward play mode, the boss (a) of the cam lock ass'y lever (56) kicks the external wall (b) of the cam gear ass'y (48) to rotate the cam gear ass'y (48) a little in the direction of the arrow shown in Fig. 7.



When the solenoid (L2) is on, the boss (d) of the cam gear ass'y (48) passes the end of the reverse lever (57) and the mechanism gets ready for forward play.

Fig. 14

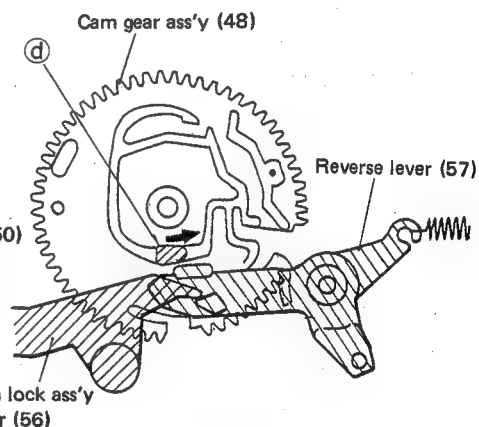
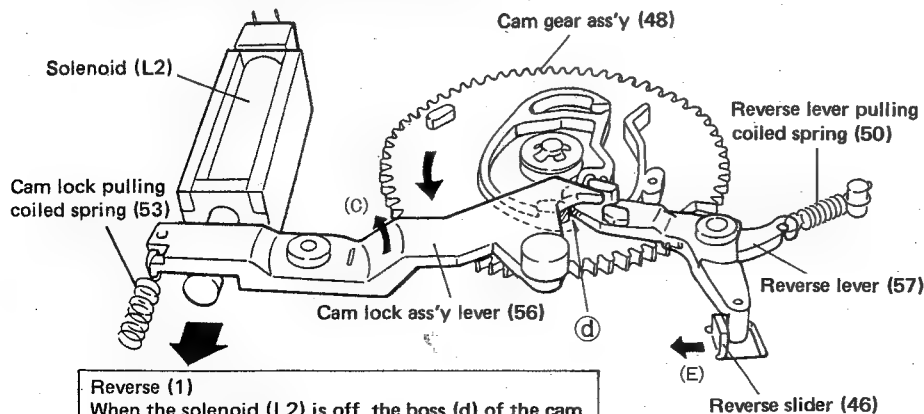


Fig. 15



Reverse (1)
When the solenoid (L2) is off, the boss (d) of the cam gear ass'y (48) is forced to the end of the reverse lever (57) and the mechanism gets ready for reverse play.

Fig. 16

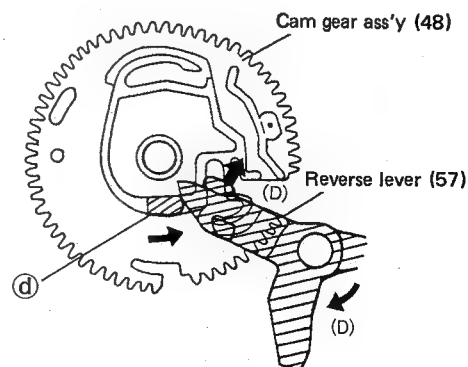


Fig. 17

- 4) Then, the gear (k) on the cam gear ass'y (48) meshes with the gear on the flywheel ass'y (9A) and the latter starts rotating. (See Fig. 6.)
- 5) As the operation described in 3) above is performed, the cam lock ass'y lever (56) rotates the reverse lever (57) counterclockwise. The voltage is applied to the solenoid (L2) for the time t_1 and then is turned off for the time t_2 . As a result, the cam lock ass'y lever (56) is returned to the original position by the coiled spring (53). Also, the reverse lever (57) is returned to the original position by the coiled spring (50). (See Fig. 16.)
- 6) When the reverse lever (57) is returned to the original position, the boss (d) of the cam gear ass'y (48) is forced against the reverse lever (57) to rotate the reverse lever (57) in the direction of the arrow (D) shown in Fig. 17.
(Fig. 15 shows the relative positions of the boss (d) of the cam gear assembly (48), reverse lever (57), and cam lock ass'y lever (56) in forward play mode. The boss (d) passes above (57) and (56).)
- 7) As the reverse lever (57) rotates in the direction of the arrow (D), it moves the reverse slider (46) in the direction "E", as seen in Fig. 16.

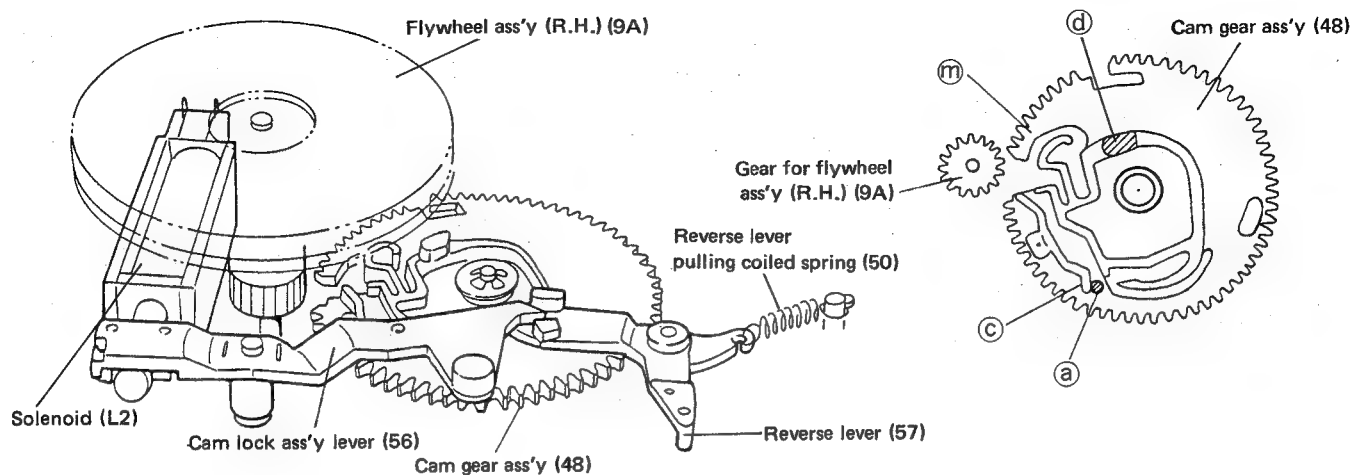


Fig. 18

- 8) As the reverse slider (46) moves in the direction "E", the sector gear (p) on the head slider ass'y (37) is rotated by the reverse slider (46). The combination head (B) rotates in the reverse direction. (See Figs. 19 and 20.)

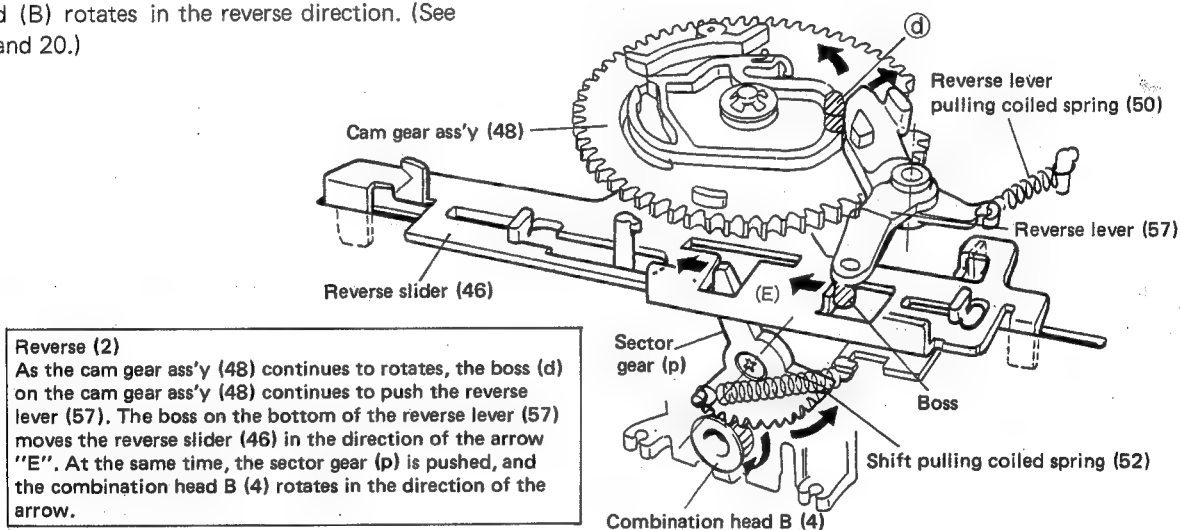
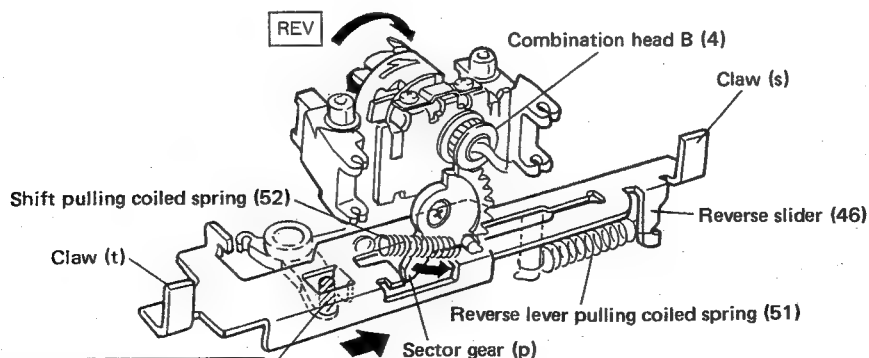


Fig. 19

Reverse (2)
As the cam gear ass'y (48) continues to rotate, the boss (d) on the cam gear ass'y (48) continues to push the reverse lever (57). The boss on the bottom of the reverse lever (57) moves the reverse slider (46) in the direction of the arrow "E". At the same time, the sector gear (p) is pushed, and the combination head B (4) rotates in the direction of the arrow.



As the reverse slider (46) moves, it rotates the combination head B (4) in the reverse direction. (Ordinarily, the reverse slider pulling coiled spring (51) pulls the reverse slider (46) in the forward direction.)

Fig. 20

- 9) As the operation described in 8) is performed, the claw (t) of the reverse slider (46) lifts the L.H. pinch roller lever ass'y (6B) to such a position that the head slider ass'y (37) can lift the L.H. pinch roller lever ass'y (6B). The other claw (s) lowers the R.H. pinch roller lever (6A) to such a position that the R.H. pinch roller cannot be lifted by the head slider ass'y (37). Thus, reverse operation is almost completed.
- 10) At this time (when t₂ has passed since the iron core of the solenoid ceased to be attracted), the holding voltage e₂V is applied to the solenoid (L2). However, the solenoid (L2) is not attracted because the voltage is still lower at this point.
- 11) Because the cam gear ass'y (48) continues to rotate, the cam (1) lifts the play lever (59) as in forward mode. (See Fig. 9.) At the same time, it lifts the head slider ass'y (37) through the auxiliary coiled spring (31) to lift the head slider ass'y (37). (See Fig. 10.)
- 12) At that time, the head slider ass'y (37) lifts the L.H. pinch roller lever ass'y (6B) and locks the reverse slider (46), which is always trying to return in the forward (H) direction, as shown in Fig. 23.
- 13) When the cam (1) of the cam gear ass'y (48) has lifted the play lever (59) to the highest position, the play lock G lever (58) locks the play lever (59). (See Fig. 13.)
- 14) On the other hand, the mold spring (e) of the cam gear ass'y (48) pushes the boss (a) of the cam lock ass'y lever (56). This rotates the cam lock ass'y lever (56) and depresses the iron core of the solenoid (L2). (See Fig. 7.)
Because holding voltage e₂ is applied to the solenoid (L2), the iron core is held and consequently the cam lock ass'y lever (56) is held.
- 15) As the cam gear ass'y (48) rotates further, its wall (c) is forced against the boss (a) of the cam lock ass'y lever (56). The notch (near (m)) in the gear of the cam gear ass'y (48) is moved to the position of the gear of the R.H. flywheel ass'y (9A) and the rotation of the R.H. flywheel ass'y (9A) ceases to be transmitted to the cam gear ass'y (48). As a result, the cam gear ass'y (48) stops rotating. (See Fig. 18.)
- 16) Consequently, the slider ass'y (37) is closely fitted to the boss (n) of the mechanical chassis (801), as shown in Fig. 22. The R.H. pinch roller lever ass'y (6B) is closely fitted to the capstan. The combination head (B) (4) faces in the reverse direction.

Thus, the mechanism is ready for reverse play.

The locus of the boss (a) of the cam ass'y lever (56) with respect to the cam gear ass'y (48) is shown in Fig. 7.

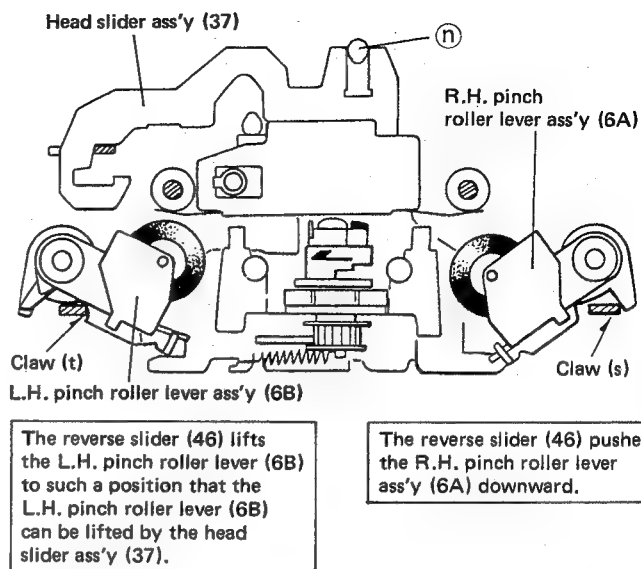


Fig. 21

When the combination head B (4) has been retracted in reverse mode, the head slider ass'y (37) and R.H. and L.H. pinch roller lever assemblies (6A) and (6B) are positioned as seen in Fig. 21. They are placed as seen in Fig. 22 when the combination head B (4) moves forward.

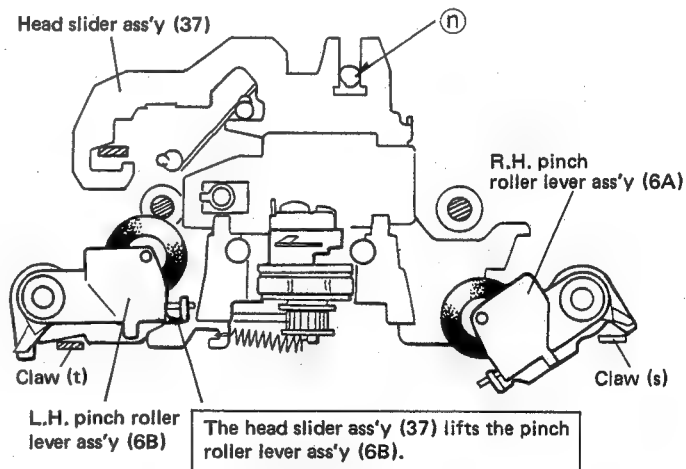


Fig. 22

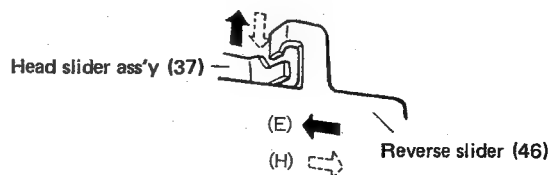


Fig. 23

3. Stop after play

- 1) When the stop button is pressed with the deck playing, electricity supplied to the solenoid (L2) is cut off. The cam lock ass'y lever (56) is returned in the direction (c) in Fig. 16 by the coiled spring (53).
- 2) As a result, the boss (a) of the cam lock ass'y lever (56) kicks the inner wall (f) of the cam gear ass'y. As the cam gear ass'y (48) rotates a little, the gear (m) meshes with the gear of the R.H. flywheel ass'y (9A) and the cam gear ass'y (48) starts rotating. (See Fig. 7.)
- 3) As the cam gear ass'y (48) rotates, the boss (g) moves the play lock G lever (58) to unlock the play lever (59). (See Figs. 24 and 25) As a result, the head slider ass'y (37) moves downward and the pinch roller moves away from the capstan. However, the head slider ass'y (37) is hooked and stopped by the portion (h) of the DPSS slider (47). (Earliest stage in Fig. 26.)
At this position, the head can be depressed in DPSS mode (music piece selection mode.)
Whenever forward or reverse play is performed after mounting of the cassette half, the mechanism is put to this position.
- 4) After release of the play lever (59), the cam gear ass'y (48) rotates further. The wall (q) of the cam gear ass'y (48) is forced against the boss (a) of the cam lock ass'y lever (56) and the notch (k) in the gear of the cam gear ass'y (9A) is moved to the gear position.
As a result, the cam gear ass'y (48) stops rotating. Fig. 7 shows the locus of the boss (a) of the cam lock ass'y lever (56) with respect to the cam gear ass'y (48).
- 5) After this, electricity supplied to the main motor ass'y (1A) is cut off and the combination head B (4) is put in the stop status at the DPSS position.

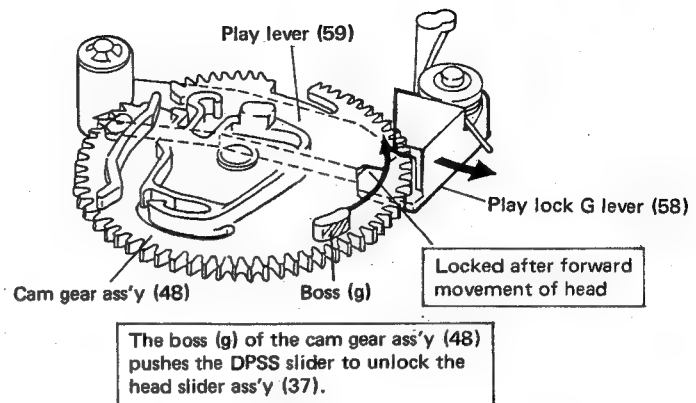


Fig. 24

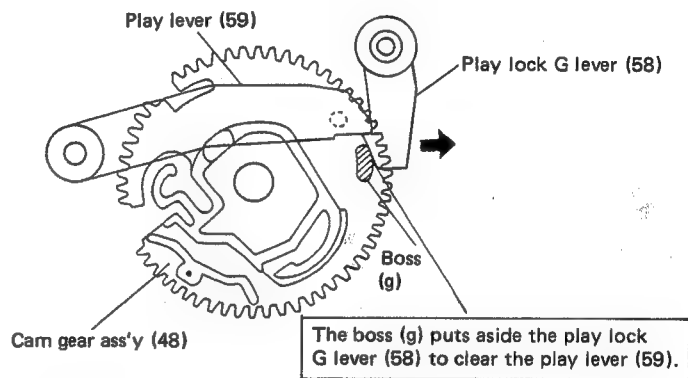


Fig. 25

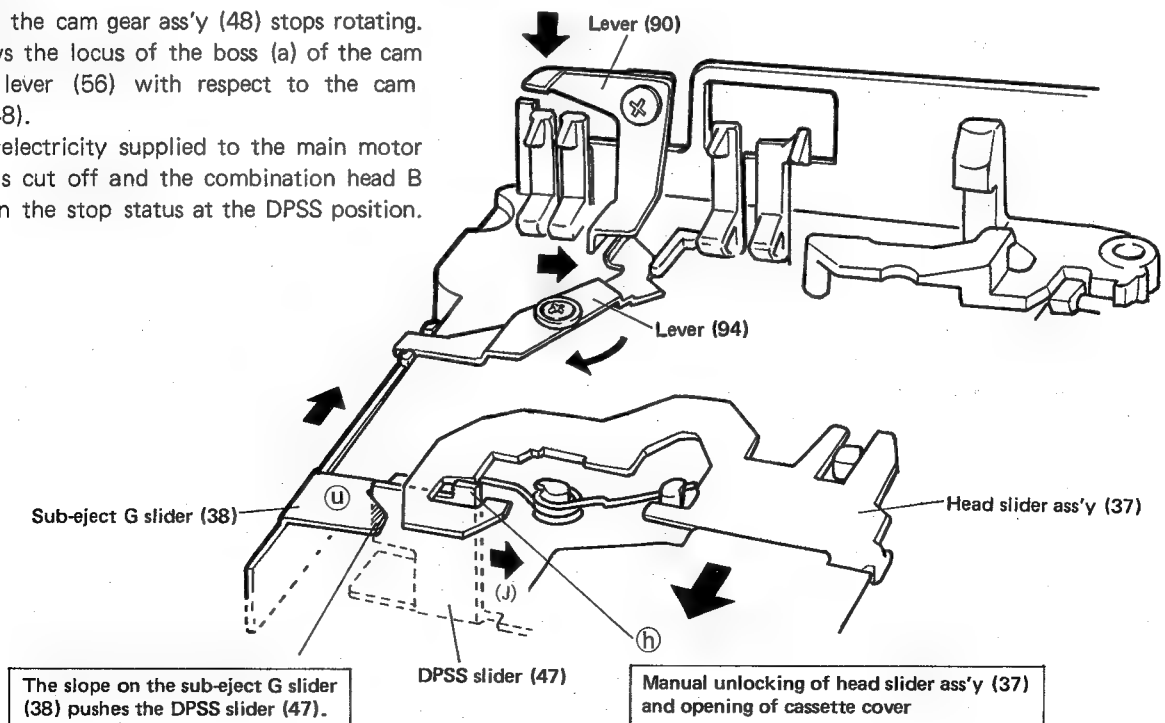


Fig. 26

4. Play after play and stop

In play after forward play and stop, the following operations are performed between 1-4) and 1-5) and 2-4) and 2-5).

- 1) As the cam gear ass'y (48) rotates, the boss (g) moves aside the DPSS slider (47) to unlock the head slider ass'y (37) put to the DPSS position and moves the head slider ass'y (37) downward until it reaches the position to which it was put immediately after mounting of the cassette half (See Fig. 26 and 27.) In play after reverse play and stop, the following operations are performed after step 1) above.

- 2) As the head slider ass'y (37) is moved downward until it reaches the position to which it was put immediately after mounting of the cassette half, the reverse slider (46) is unlocked and the combination head B (4) is inverted from the reverse to the forward direction.

Upon this, the reverse slider (46) moves the R.H. pinch roller lever ass'y (6A) to such a position that the latter can be lifted by the head slider ass'y (37). The reverse slider (46) moves the L.H. pinch roller lever ass'y (6B) to such a position that the latter cannot be lifted by the head slider ass'y (37).

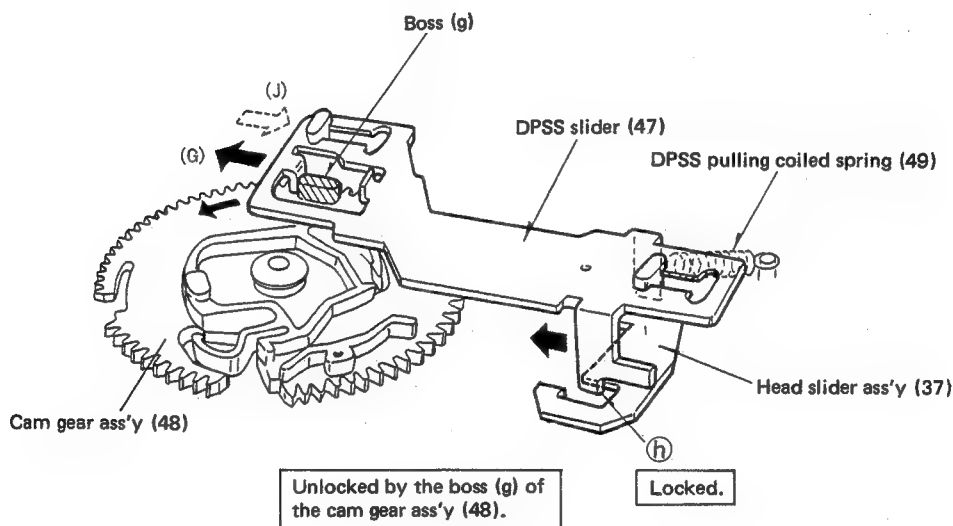


Fig. 27

5. Selection of Musical Piece

If the FF or REW button is pressed after the PLAY button is pressed, operations of stop after play described in paragraph 3 above are performed. the combination head B (4) is put to the DPSS position. High voltage (9~12V) is applied to the reel motor ass'y (1B) and musical piece selection is performed.

Eject

In play after stop, the head slider ass'y (37) remains at the DPSS position and the combination head B (4) is put in the cassette half. To eject the cassette half, the combination head B (4) must be moved downward to take out the cassette half.

Operations for ejection of the cassette half are described below. (See Fig. 26.)

- 1) when the left top of the cassette lid (211) is pushed, the lever (90) moves in the direction of the arrow. This moves the lever (94) and lifts the sub-eject G slider (38). The slope (u) of the sub-eject G slider (38) pushes the DPSS slider (47) in the direction of the arrow (J) and lower the head slider ass'y (37) from the DPSS position to the position to which it was put immediately after mounting of the cassette.

This puts the combination head B (4) out of the cassette half. If the left top of the cassette lid (211) is pushed during playing, the portion (h) of the DPSS slider (47) is forced against claw of the head slider ass'y (37) to prevent the cassette lid from being opened.

Forward/Reverse Sensing Mechanism

Fig. 28 illustrates the forward/reverse sensing mechanism in forward mode.

In reverse mode, the reverse slider (46) moves in the direction of the arrow so that the direction sensing switch (S621) is turned off. For display of forward/reverse, turning on and off of this switch (S621) is utilized.

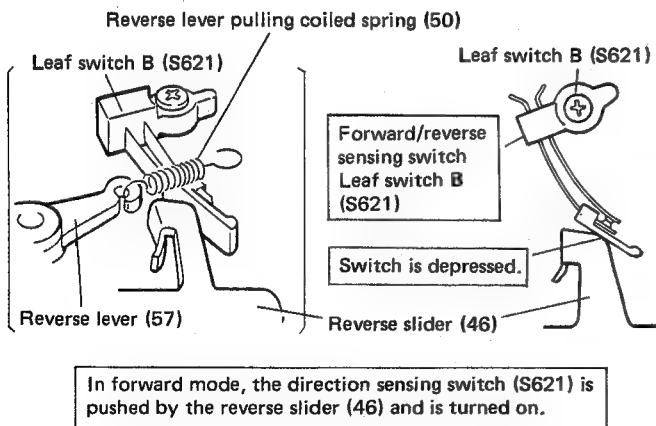


Fig. 28

Quick Reverse Sensing Mechanism

This mechanism senses the leader tape portion in start and end of winding of the tape and inverts the combination head B (4) instantaneously. The cross section of this mechanism is shown in Fig. 30.

If no tape is present at the tape guide (36), current is supplied to the LED B (D672). The light passes through the transparent resin reference pin. It is reflected by a 45° plane and reaches the photo-transistor B (Q824) inside the tape guide (36).

If the magnetic surface of the tape is positioned at the tape guide (36), the light from the LED B (D672) is blocked by the magnetic surface to prevent the light reaching the photo-transistor B (Q824). As the leader tape portion of the tape comes to the tape guide (36), the light from the LED B (D672) passes through the transparent or semi-transparent leader tape portion. The light reaches the photo-transistor B (Q824) and current flows through the photo-transistor B (Q824).

Turning on and off of this current is sensed by the quick reverse circuit and the combination head B (4) is inverted instantaneously.

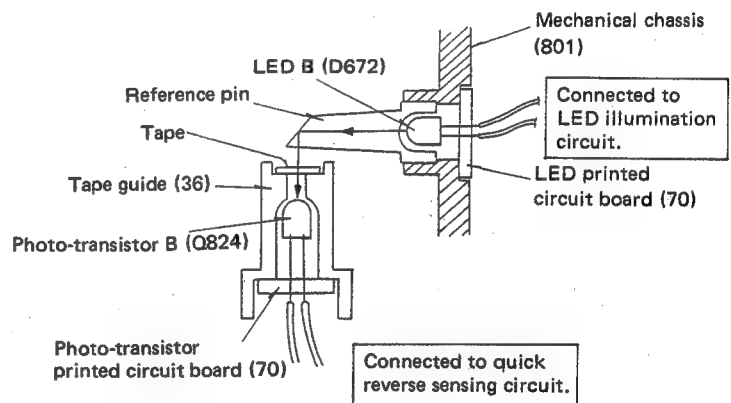


Fig. 30

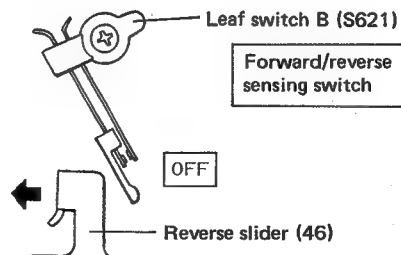


Fig. 29

REPLACING AND ADJUSTING MAJOR PARTS

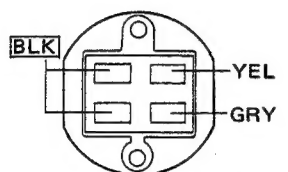
Replacing Head

Loosen the two head retaining screws (65). Remove the combination head (4) as seen in Fig. 32. Remove the head lead wire.

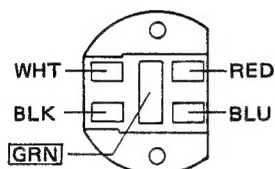
During assembly, be sure to pass the head lead wire through the motor cushion (13). A different head lead wire is used according to the head employed. Solder it as shown in Fig. 31.

Note : Fix the UL tube with adhesive agent.

Wires marked with "□" should not be routed through the motor cushion (13).



Playback on KX-94W (Deck A)



Recording, Playback, Erase on KX-94W (Deck B)

Fig. 31

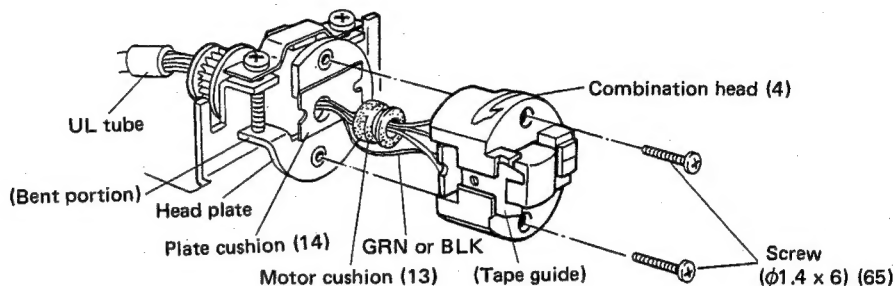


Fig. 32

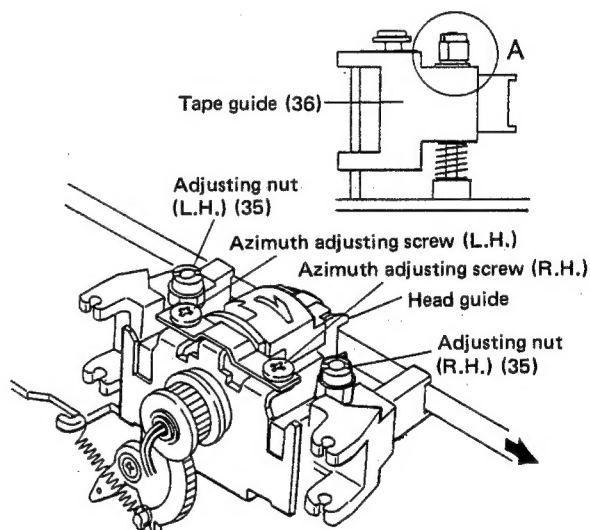


Fig. 33

Adjusting Tape Path

Whenever tape has been replaced, the path of the tape must be adjusted.

- 1) Align the adjusting nuts (35) on the right-hand and left-hand tape guides (36) to the upper end of shaft as shown in Fig. 33-A.
- 2) Play back a 6.3kHz or 10kHz test tape in forward play mode, turn the R.H. azimuth adjusting screw for adjustment. (See Fig. 33.) Then, play back the test tape in reverse play mode and turn the L.H. azimuth adjusting screw for adjustment (See Fig. 34.)
- 3) Using the mirror tape, check that the tape runs normally in forward and reverse play modes and that the tape is not curled at the tape guide on the combination head (4).
- 4) If the tape is found to be curled, turn the adjusting nuts (35) on the R.H. and L.H. tape guides (36) to adjust the tape.
- 5) Repeat steps 2) and 3) above.
- 6) When running of the tape has been adjusted, tighten and lock the adjusting nuts (35) and azimuth adjusting screws.

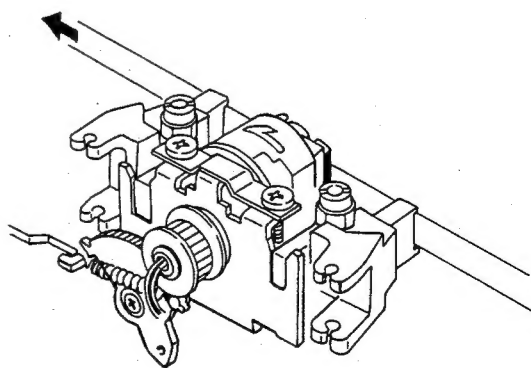
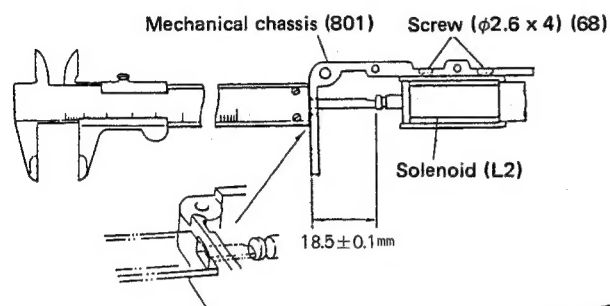


Fig. 34

Adjusting Solenoid Position

When a solenoid is replaced, its mounting position must be adjusted correctly.

- 1) Mount the solenoid (L2) on the mechanical chassis (801). Put calipers through the rectangular hole at the lower side of the mechanical chassis (801). Adjust the position of the solenoid (L2) from under the mechanical chassis (801) so that the distance of the iron core is 18.5 ± 0.1 mm. Secure the solenoid and check its position. Then, tighten and lock the screw (68).



Replacing Main Motor Ass'y and Belt

1. Replacing Main Motor ass'y

- 1) Remove the belt (3) and loosen one motor retaining screw (64).
Remove the retaining two screws by turning the main motor ass'y (1A) counterclockwise.

2. Replacing Belt

- 1) Loosen four motor T fitting retaining screws (71). Also, remove the belt (3).
- 2) In removing the motor T fitting (11), be careful not to omit the flywheel bearing (10) and plain washer (76).

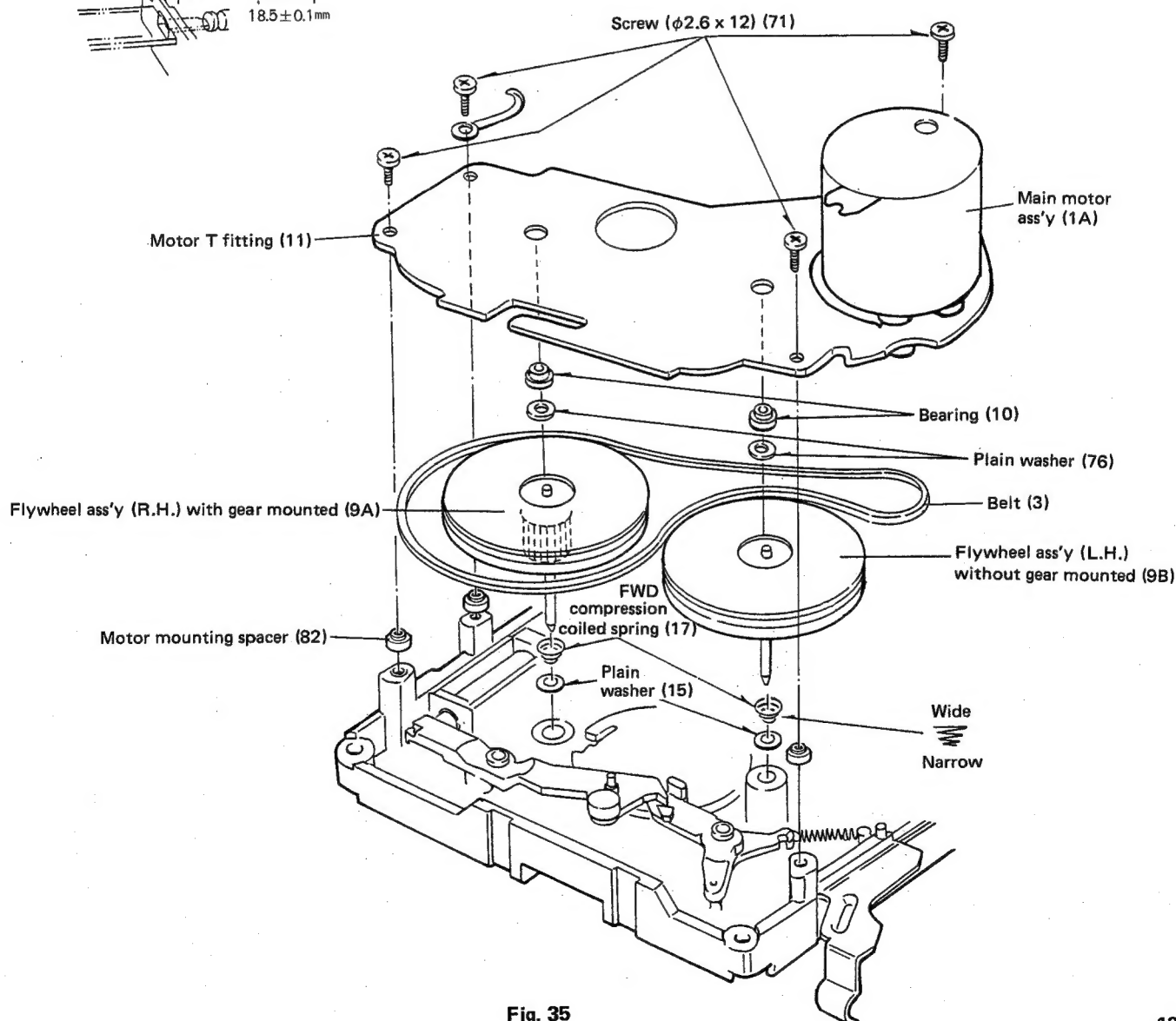


Fig. 35

Mounting flywheel end springs

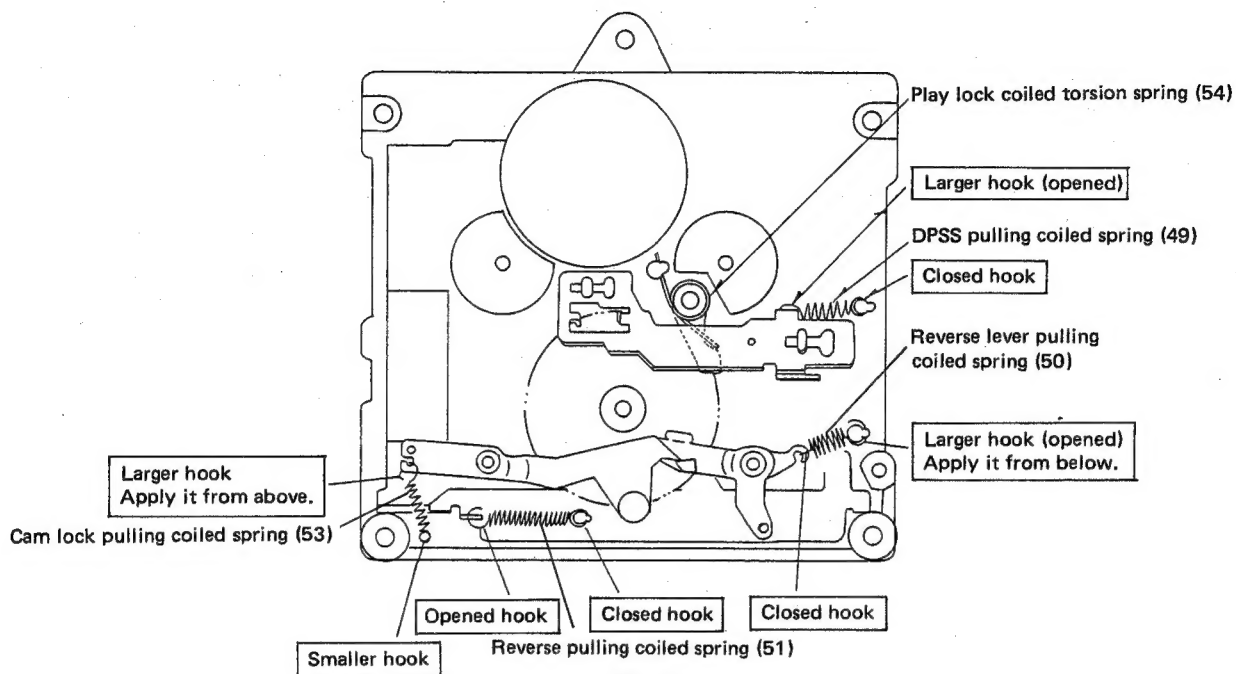


Fig. 36

Position of head end springs

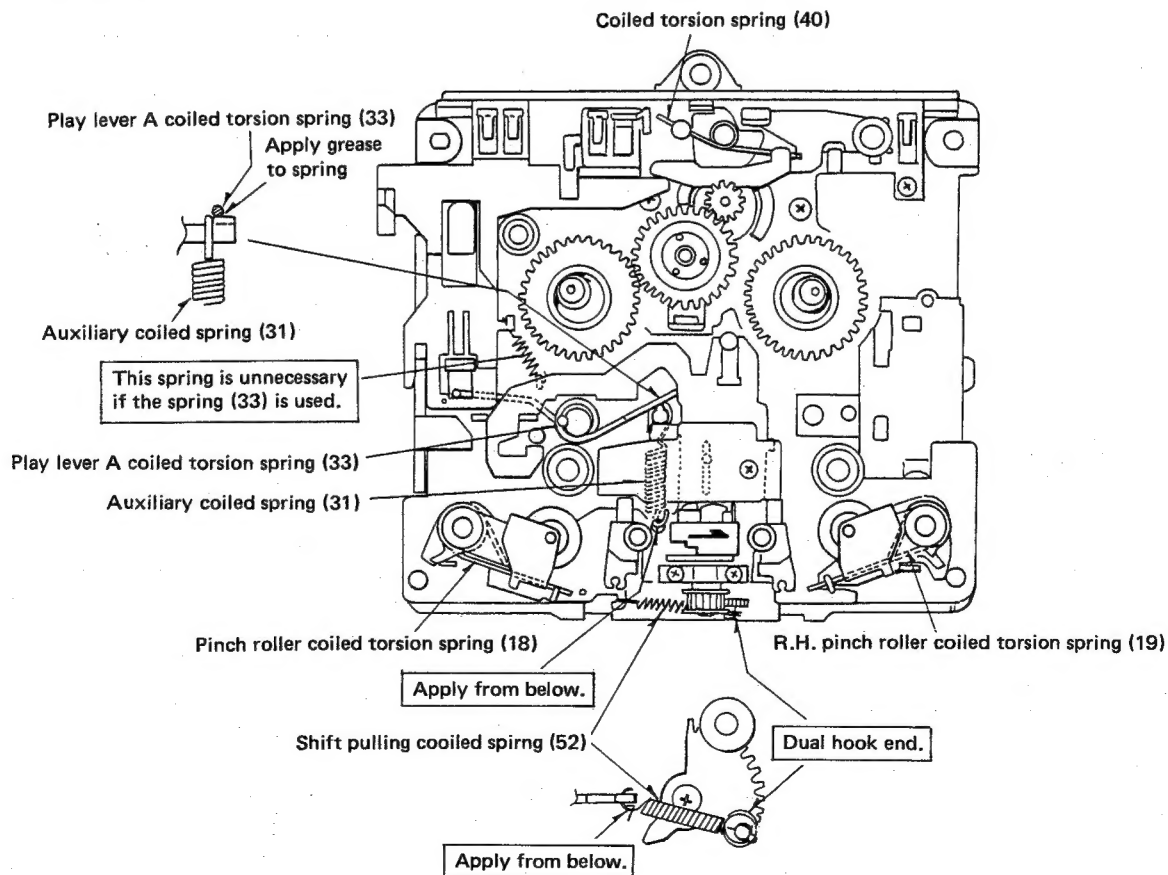


Fig. 37

Bunding wires (on KX-94W deck)

